



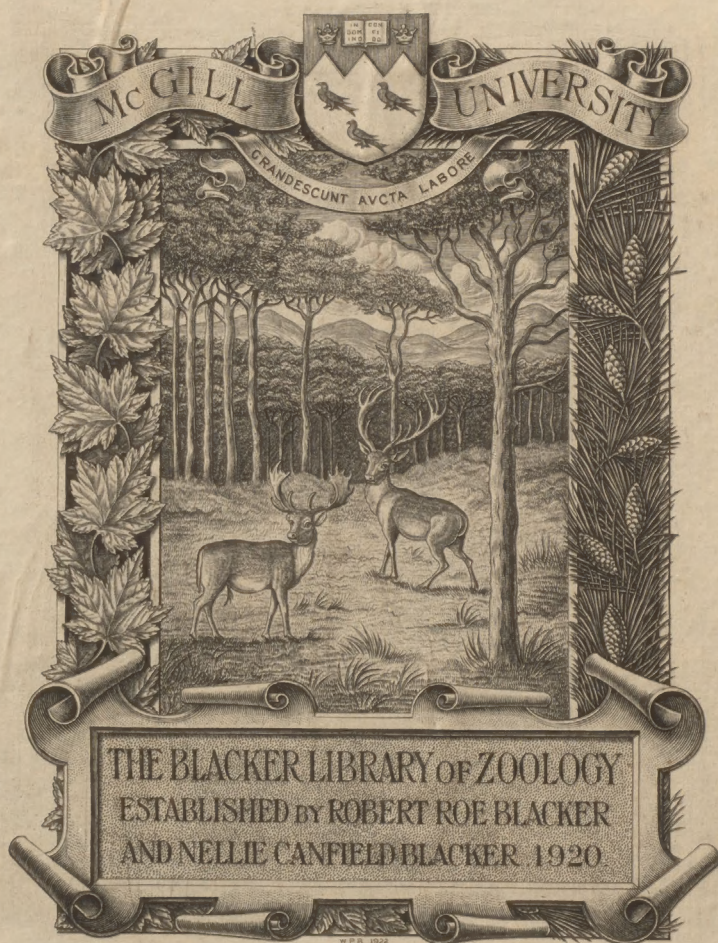
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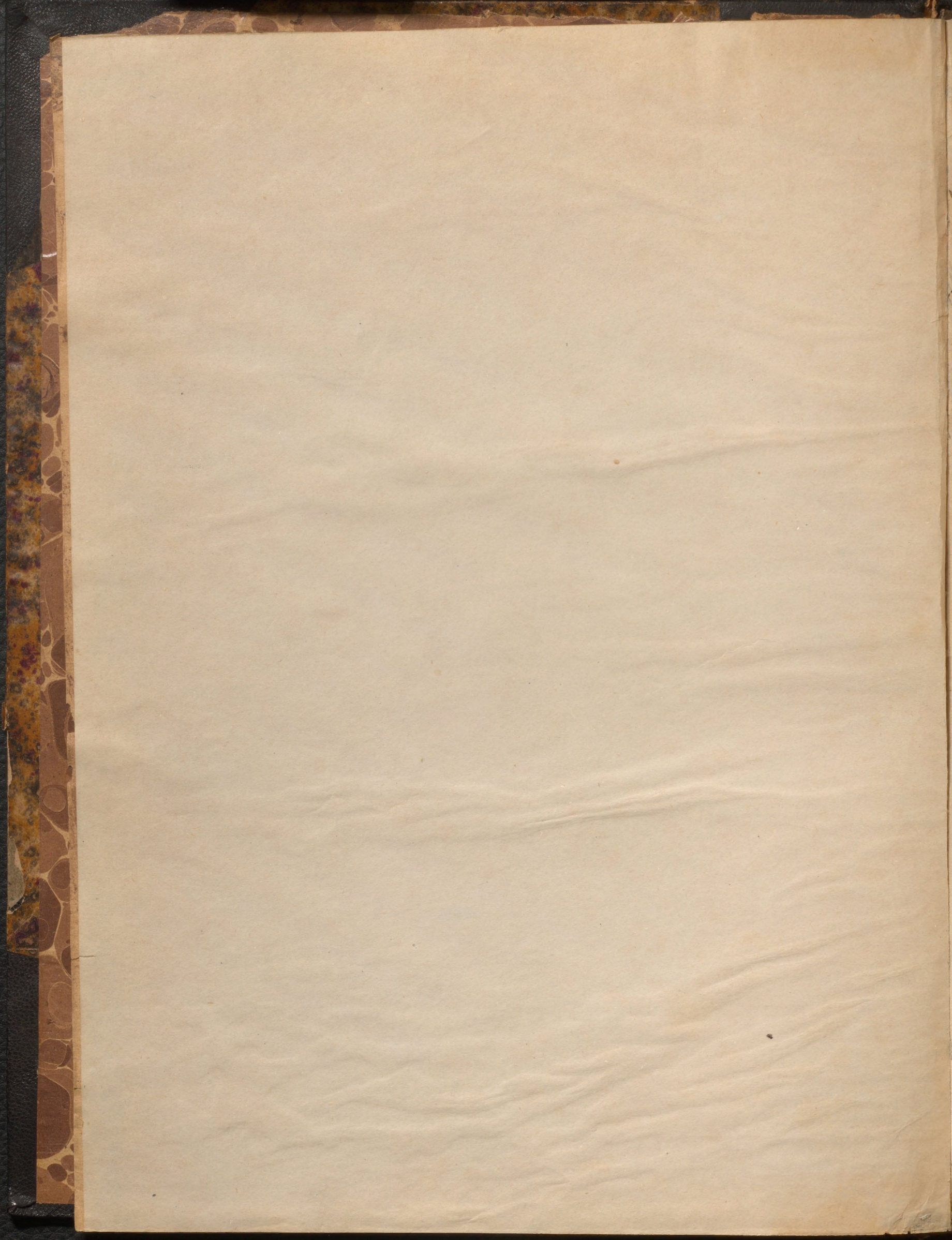
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More Jan'y 19<sup>th</sup> 1828.

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Whelan's (Aug. 29)

[Appendix

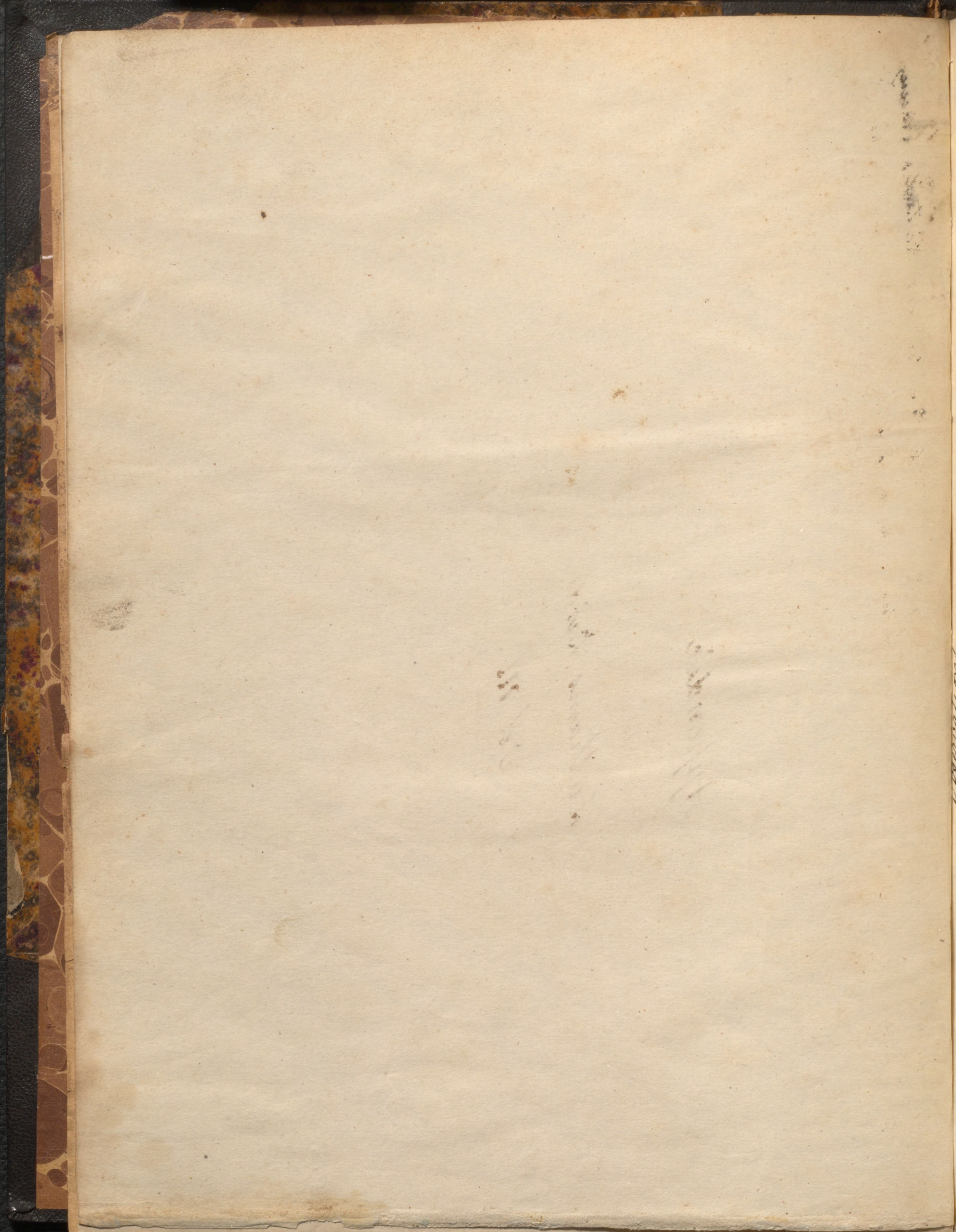
to

Latham's Birds.

Vol III.

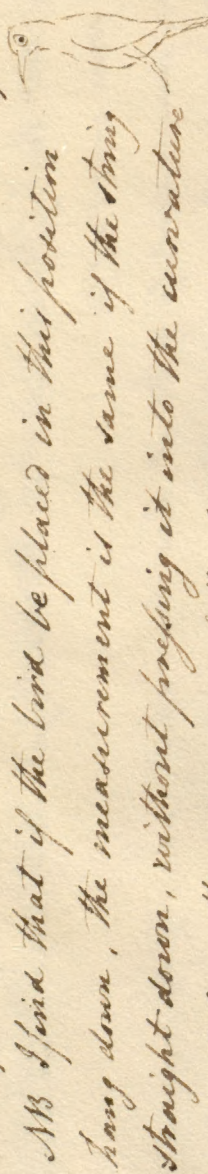
Oct 10/23







Of the figures of length. The first means from the point of the beak to setting on of the tail: placing the bird in its natural sitting position; and measuring by the curvature of the head (preparing down the crest if the bird have one) neck back &c. the second, from the last point to the end of the longest feather.



MS. I find that if the bird be placed in this position holding it by the bill and allowing the body to hang down, the measurement is the same if the string be taken from the bill over the crown of the head straight down, without preparing it into the curvature of the neck. This saves trouble.



MS. To find the setting on of the tail, it is cocked up like this and the inner ~~feather~~ corner of the angle it makes with the body, is the point of measurement. This sometimes gives a greater difference than the appearance of the bird would indicate: as some have the feathers of the rump, vent and tail-coverts very long in proportion to their size; which makes the body appear longer, and the tail shorter than it is. e.g. D. Vol 1. Pl. 53. Fig 2. also Pl. 48. & others.

The Perpendicular height means when the bird is standing as he is drawn.

The Length of Bill, or for short "Bill" signifies from the point to the corner of the mouth where open.

The "Breadth" means from the extreme points of the longest quill from wing to wing, when full-stretched whether the outer quill or not.

The above are invariable, unless other measurements are expressly specified.

The Native names given allude to the place where the bird was killed, unless otherwise specified. For the names of the same bird, differ often in different parts of India, as indeed is the case with plants insects and even animals. In the Hills (of the Himalayah) villages a few miles apart, have sometimes different names for the same bird.

The information about their nests, eggs, time of breeding, migration, and other local points, is collected chiefly from the village boys; who (in the Hills particularly) from being continually bird-nesting, and playing about in the Jungles, are generally well acquainted with these matters.

MS. The men comparatively know little: they often say "When I was a boy I could have told you all about it, but I have forgotten it now."



The native names are given with great exactness. Spelling according to Gifford's plan. This generally is not sufficiently attended to, which creates confusion. Many names of birds, have some meaning characteristic of their color, song, shape, manners &c.

The underparts, and those which cannot appear in the drawing are minutely described. Where I have not exactly hit the color, it is mentioned. Some want of this having been done in the drawings from which Latham's descriptions are taken, he has described the color of some incorrectly.

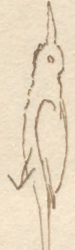
Almost every picture is taken from a real specimen, immediately after it has been shot, chiefly by myself, which gives me an opportunity of observing their natural position and motions. Some few are taken from live birds in cages. but where this is the case it is mentioned, also if taken from another picture or stuffed specimen.

In some the tongue is mentioned to have the "hooked joint", that is when the tongue has a joint near the root, with a sort of bent above, pointing backwards like this:



+ In some the eye is said to have a "film from forwards" (or backwards, upwards, downwards) that is when it has a film under the eye lid, with which it can cover the eye; and which projects from the front or back, or upper, or lower side of the eye.

When a bird is stated to be drawn  $\frac{1}{2}$ ,  $\frac{3}{4}$  &c the natural size, it is done by scale, with proportional emphasis. The toes are sometimes said to have 1, 2, 3, & joints, or 1, 2, 3, & &c. The first number relates to the back toe; the second to the inner; the third to the middle; the fourth to the outer toe.

MS I find that if the bird be drawn out straight like this  putting the neck very slightly, the measurement is the same as either of those methods mentioned overlap.

For brevity's sake, when the toes are directly joined to each other, they will be said to "be joined". When joined to each other by a membrane, to be "membranous".

MS. Should the bird have two toes before, & two behind, the numbers will refer respectively to the inner back, inner front, outer front, & outer back toe. Should all four toes be forwards, the numbers will commence at the innermost.

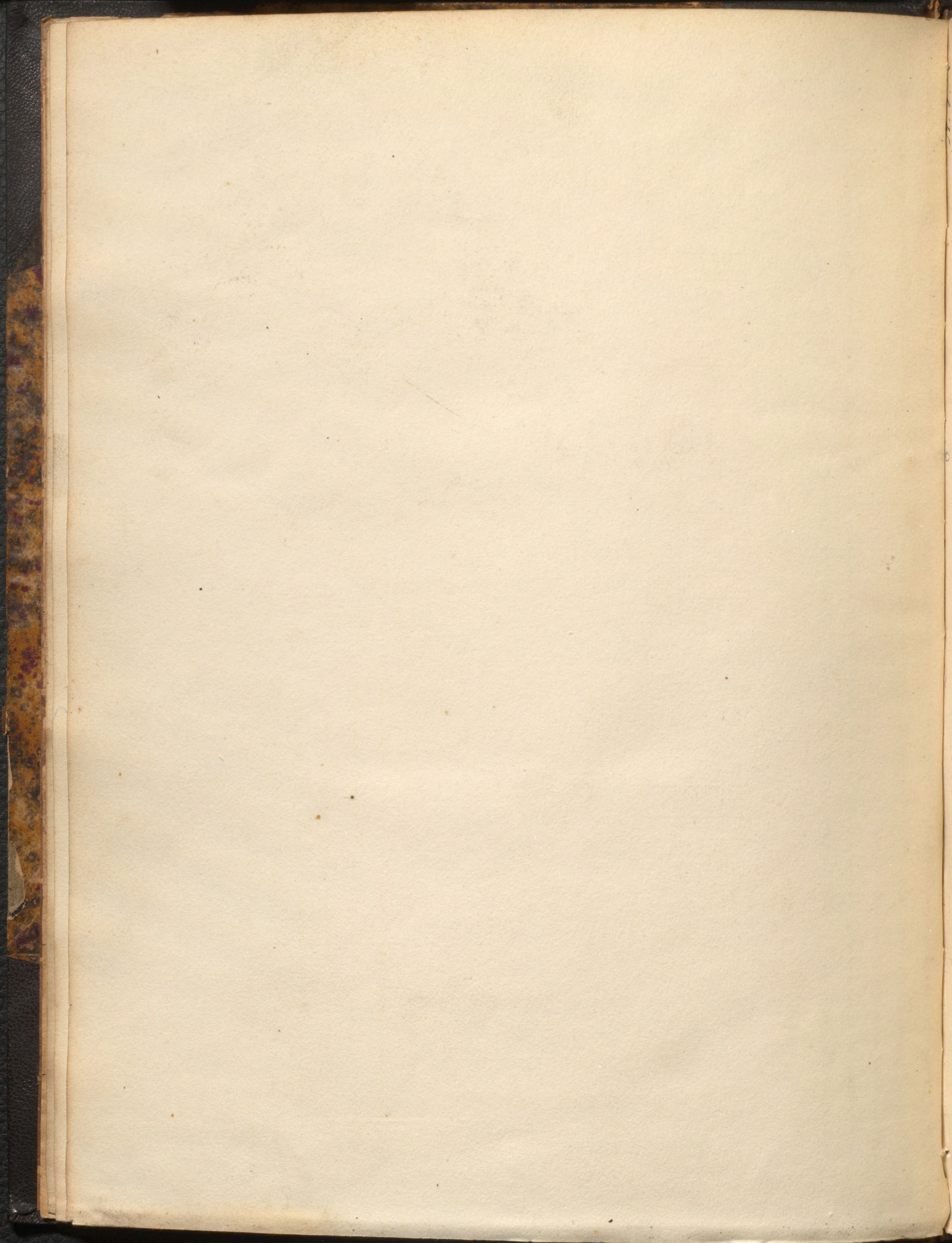
+ Some of the birds being only wounded, enabled me to ascertain this.



P. 6. Aug. 1829. On looking over the book, I find some not very correct. All those that are marked with a cross in the corner where the date is, may be depended on, as properly drawn by scale from living specimens, and whose descriptions are annexed are accurate.

The others were drawn before I understood the plan of properly taking them off by scale, and are chiefly drawn by the eye. consequently cannot be completely relied on as fit to describe from. [T. J. Shore]









+ Fig 1. Jan'y 24. 1828.

Length  $3\frac{1}{2}$  -  $2\frac{1}{8}$  - Bill  $\frac{5}{8}$  Broad  $9\frac{1}{8}$  - inches. Drawn of the natural size. Inner wing-coverts like the breast but a little lighter. Tail 12 a little rounded. The white on the wing is the coverts nearest the body, & it is barely perceptible when the wing is quite closed. Tongue narrow thin, a little gonged, horny at the end, & has the hooked joint. Toes 1. 2. 3. 4 joints. Middle joined to the outer to the first joint, membraned to the inner half way up the 1<sup>st</sup> joint.

Killed near Hardwar.



The female of Vol 1. Pl. 29. Fig 2.  
It is a little smaller, but very little difference.

+ Fig 2. Jan'y 29<sup>th</sup> 1828.



Killed at Hudson. Called Sid or Seed. Given by Gubernatorial.  
Length 26  $\frac{5}{8}$  - 10  $\frac{1}{2}$  - Bill 2  $\frac{3}{4}$  - inches. Breast 7  $\frac{1}{2}$  - 3  $\frac{1}{2}$  <sup>inches</sup>. Proportional height 26  $\frac{3}{4}$  inch. Middle claw 3  $\frac{1}{4}$  inch.  
Lower part of back dirty white, with a very slight reddish brown tinge. Inner wing coverts the same, but the edge of the wing  
dark blackish bluish brown. At the root of the neck is a sort of puff or osseous. Sides of the body close to the wing, are  
dirty white. Feathers of breast like lower part of belly, but the shafts are dirty brownish white. Vent and under tail-  
coverts dirty brownish white. Upper tail coverts very short color like the tail. Tail is a little rounded.  
Toes 1. 2. 3. 3 joints. Middle strongly membraned half way up the 1<sup>st</sup> joint to the inner webby up the 1<sup>st</sup> joint to outer.  
The back part of the head and neck has a good number of short dirty brownish white hairy feathers. The front part has a  
few short hairs only perceptible by looking near. On some lights the throat has a dirty chocolate tinge.  
Inside of quills like the outer, but much lighter. Outside almost perpendicular across the bill. The puff does not extend to the  
front part.





Fig 1. Jan'y 27.  
1818.

White-backed Vulture Fig 2. Length  $4 - 1\frac{1}{2}$  -  $12\frac{3}{8}$  - inches. Tongue bayonet-shaped at root, the rest horny, beak more, very - thin, not divided at end. Nostrils oval, in a long depression, & covered with a black membrane. The scarlet gullet

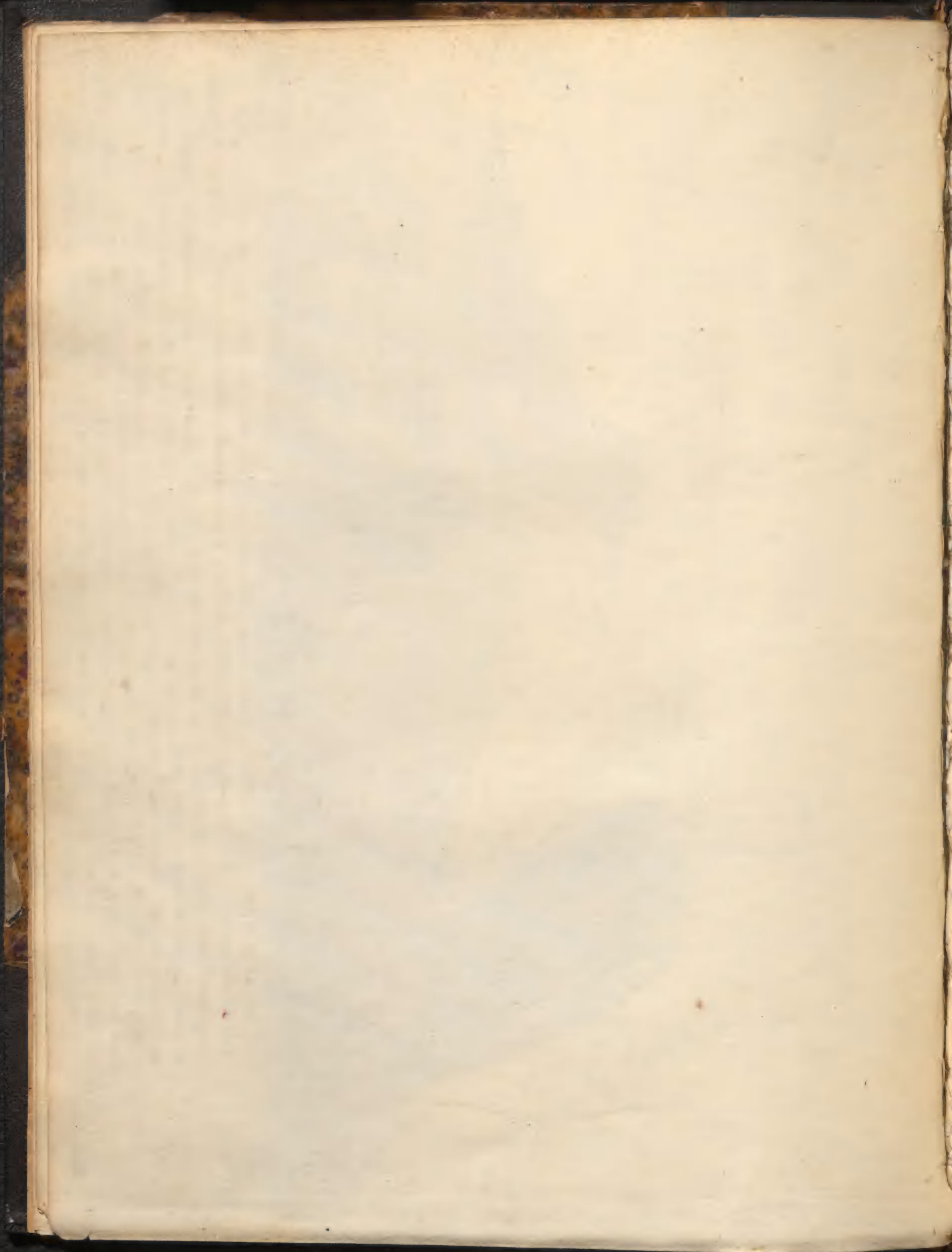


Fig 2. Full-size.  
from old book.

Wall Creeper (*Tichodroma muraria*)

long coverts have black inner webs. Quills scarlet on outer, black on inner webs for two-thirds the length from the roots, except the outermost & three innermost. The four outer quills have each two patches of white on inner web one  $3\frac{1}{4}$  inch from tip, the other an inch above that. The fifth quill has one even with the latter, & the sixth quill has one  $3\frac{1}{4}$  inch from tip. The 4th & 5th quills have a patch of light brown on inner web - even with the above mentioned upper patch. Inner wing coverts black backed with red. Tail 12. The outer black at root, half, white with slate-colored fringe at end. The second black fringed with slate color, & a patch of white on inner web near the tip. Rest like latter without the white patch. Back claws half an inch long. Formed in the Doon running about rocks.









Neophron (Neophron perenopterus).

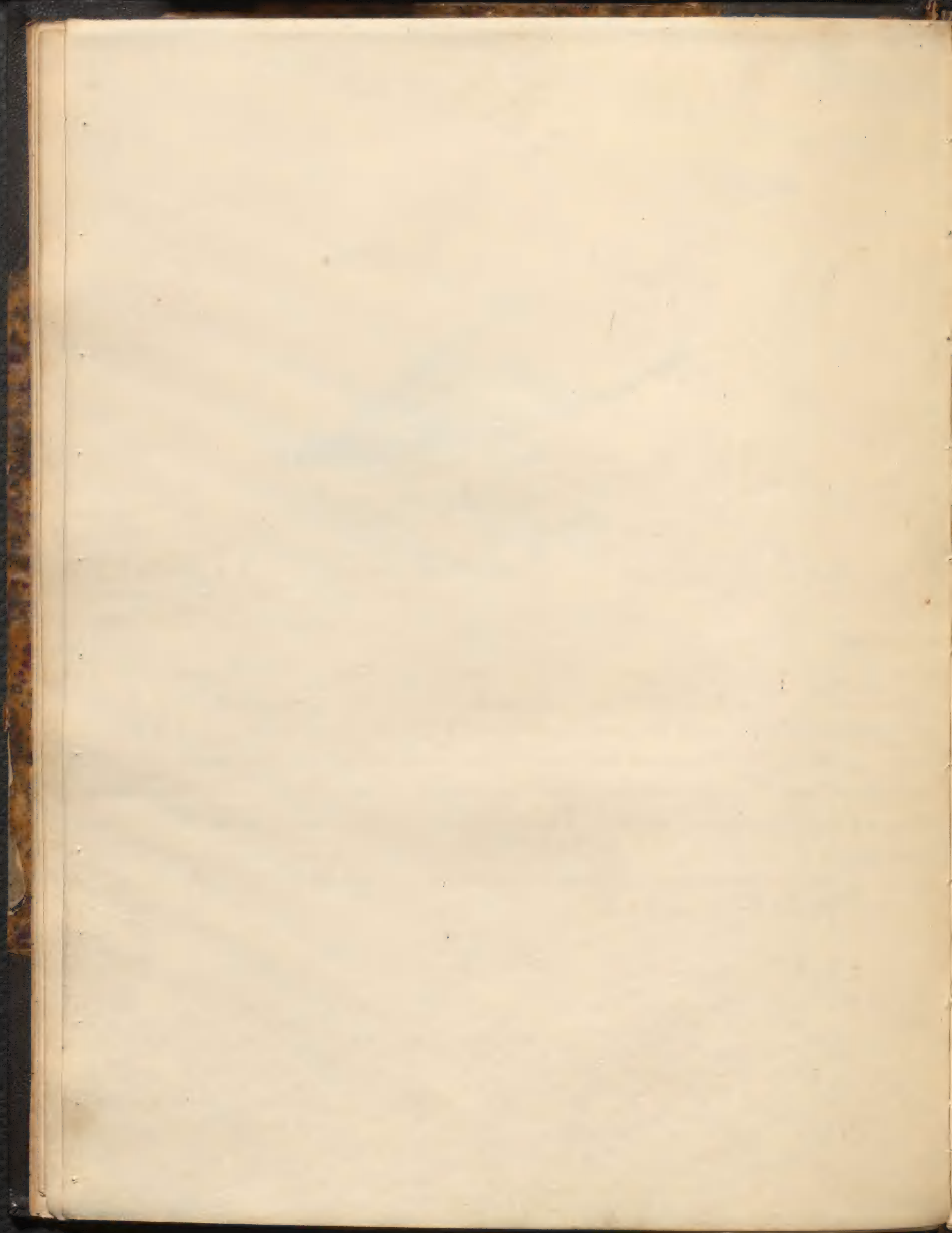
+ July 23<sup>rd</sup> 1828  
correct by scale from  
fresh killed bird.

one fourth size.

Length 17 -  $10\frac{3}{4}$  - Bill  $2\frac{1}{2}$  - Broad 65 - inches. Tongue soft fleshy. fits to the inside of the under mandible. ears large. in the cere underneath the eye. Inner wing coverts pure white. sides of body like breast. Whole body indeed white with dirty light brown dashes. Tail 16 rounded. Does 1, 1, 3, 2 joints. Middle and outer membraned together at their root. Perpendicular height about 14 or 15 inches. This bird is found all over Bengal and Hindostan eating all sorts of garbage, and may be seen near a cantonment eating human excrement.

MS. The legs are a little too dark. They should be more of a whitish cream color. on the whole well done as to shape and color.



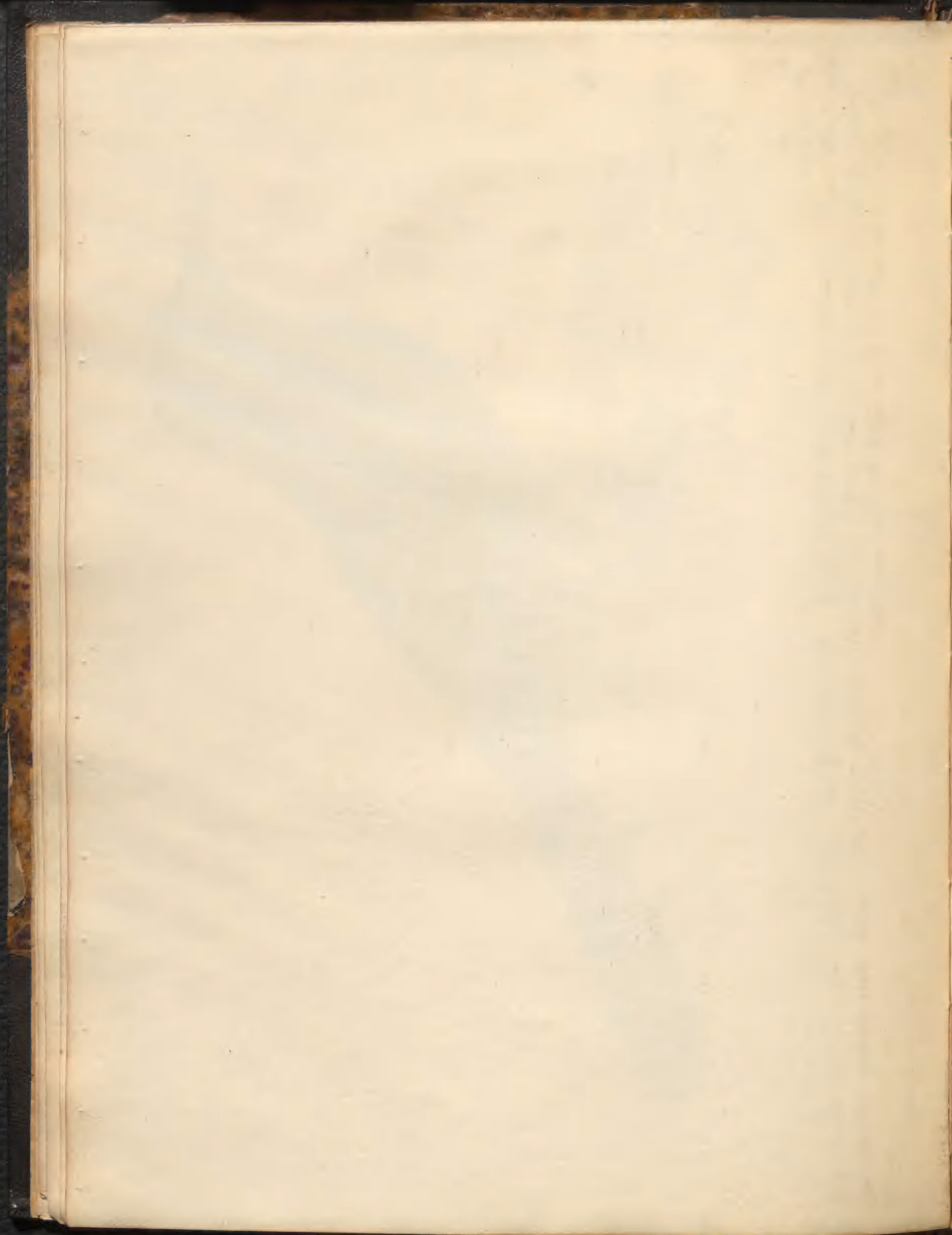






Full eye. Spied from the back.  
 Probably a Grackle.  
 Length  $6\frac{3}{4}$  —  $4\frac{1}{8}$  —  $1\frac{1}{4}$  —  $14\frac{3}{4}$  — inches. Tongue much fringed. Inside of mouth red. Legs short and scaly. Claws hooked and sharp. Middle and outer toes joined half way up joint. Found in Southwell. Called *Bun Baku* (forest goat) from a fancied resemblance in its cry to the bleat of a goat.





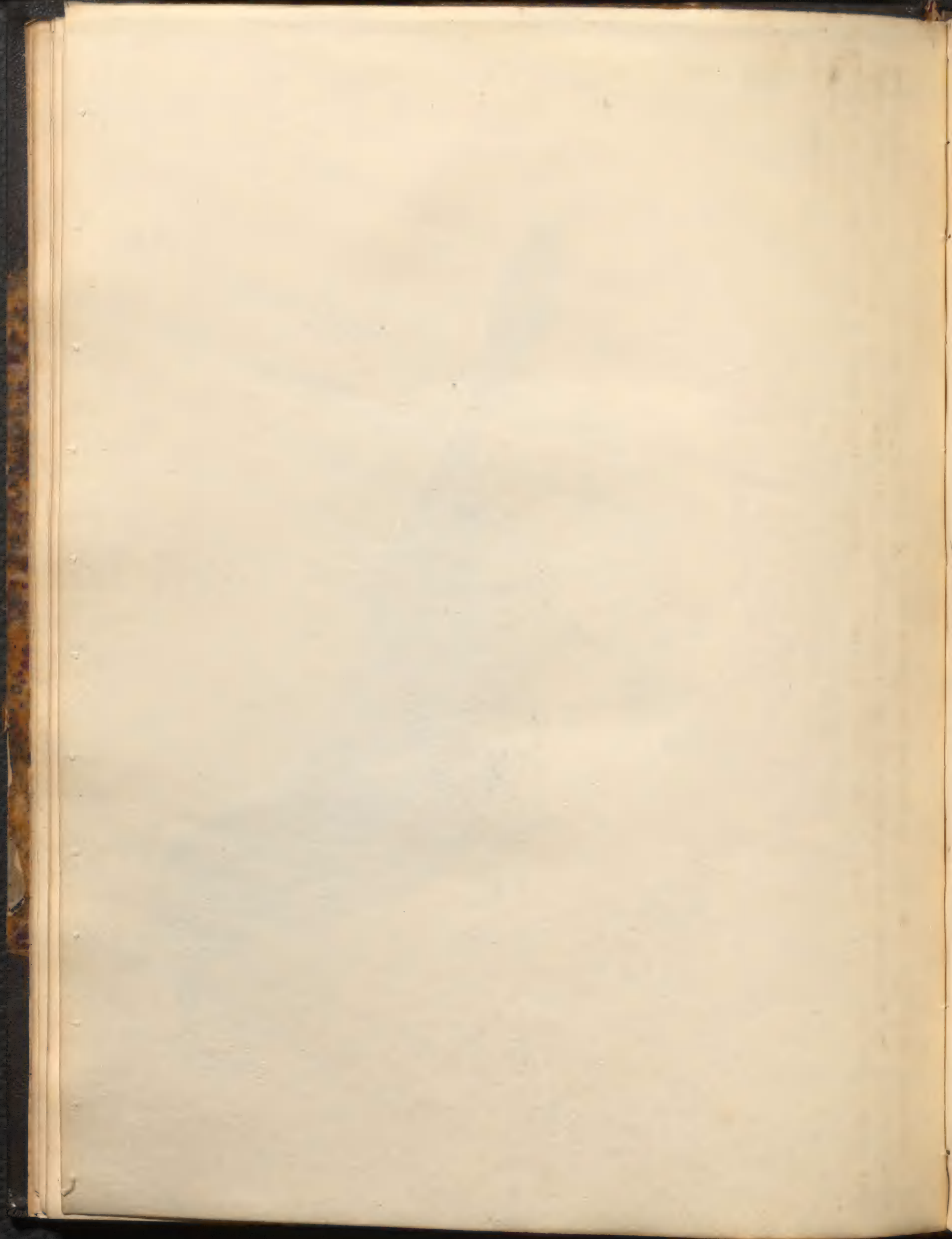


Quill size. Spined from old book  
probably a buckram.

Along the 5 - 4  $\frac{3}{8}$  - 13  $\frac{5}{8}$  - inches. Tongue flat, thin, slightly divided at the end. Inner wing-covert grey with whitish  
speckles. The middle wing quills have a patch of white on inner web near the root. Whiskers in a projecting row, inside of mouth  
red. Tail 10, lanceiform. The outer barred with white. The second slightly so, rest only white at tips. Found in Furberall.







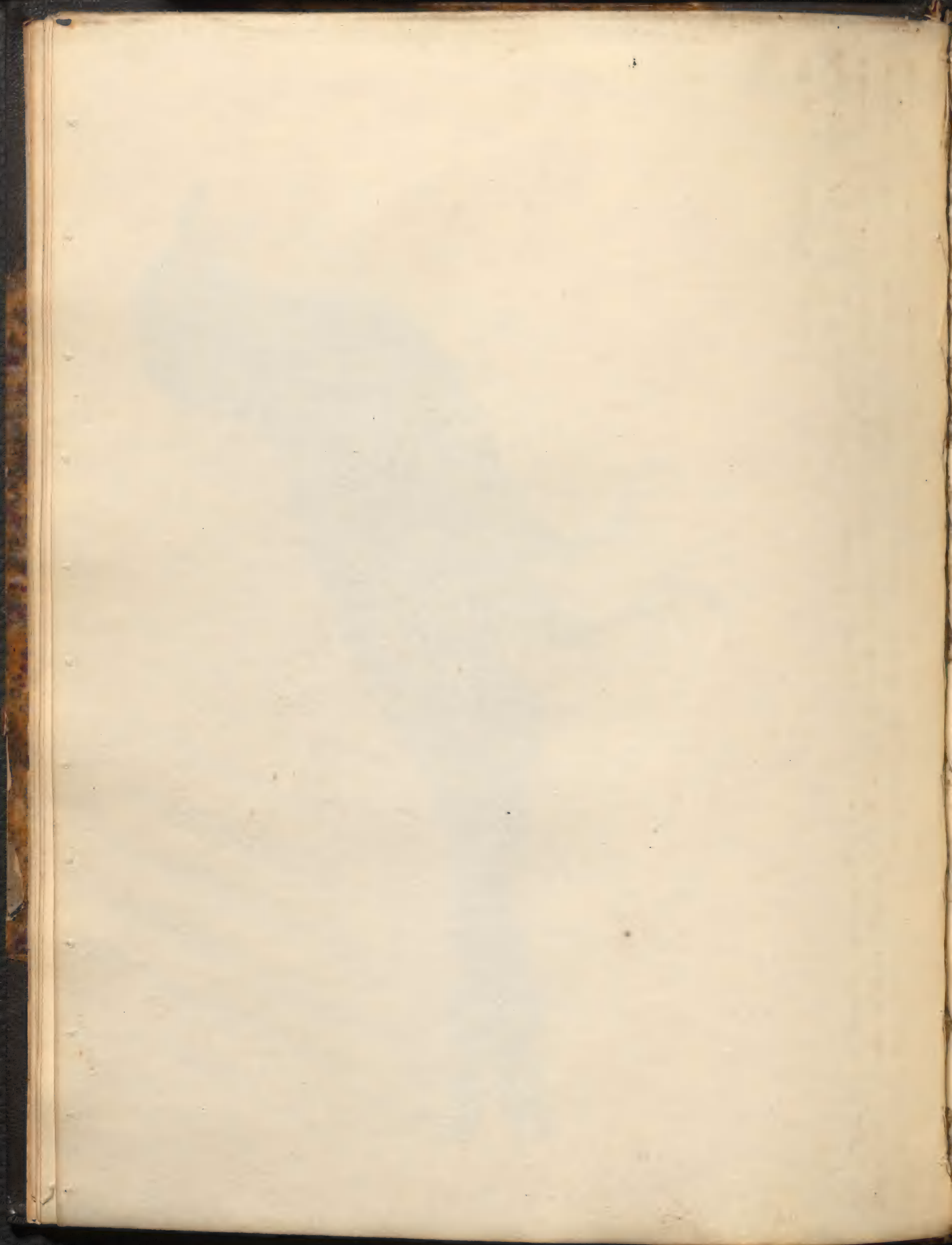




Full size - from old book. Probably a Cuckoo.

Length  $5\frac{1}{4}$  -  $5\frac{3}{4}$  -  $14\frac{1}{2}$  inches. Plumage of upper parts & from chin to breast, black with a greenish, bluish, purplish gloss. Belly & below it, black. Quills have a spot of white about the middle of their length, on the inner web. Tail 10. The outer ones two-thirds as long as the other eight which are even, four turning one way, four the other, forming the tail. Outer tail feathers, & under tail coverts beautifully banded with ash-color. Found in Newhall.









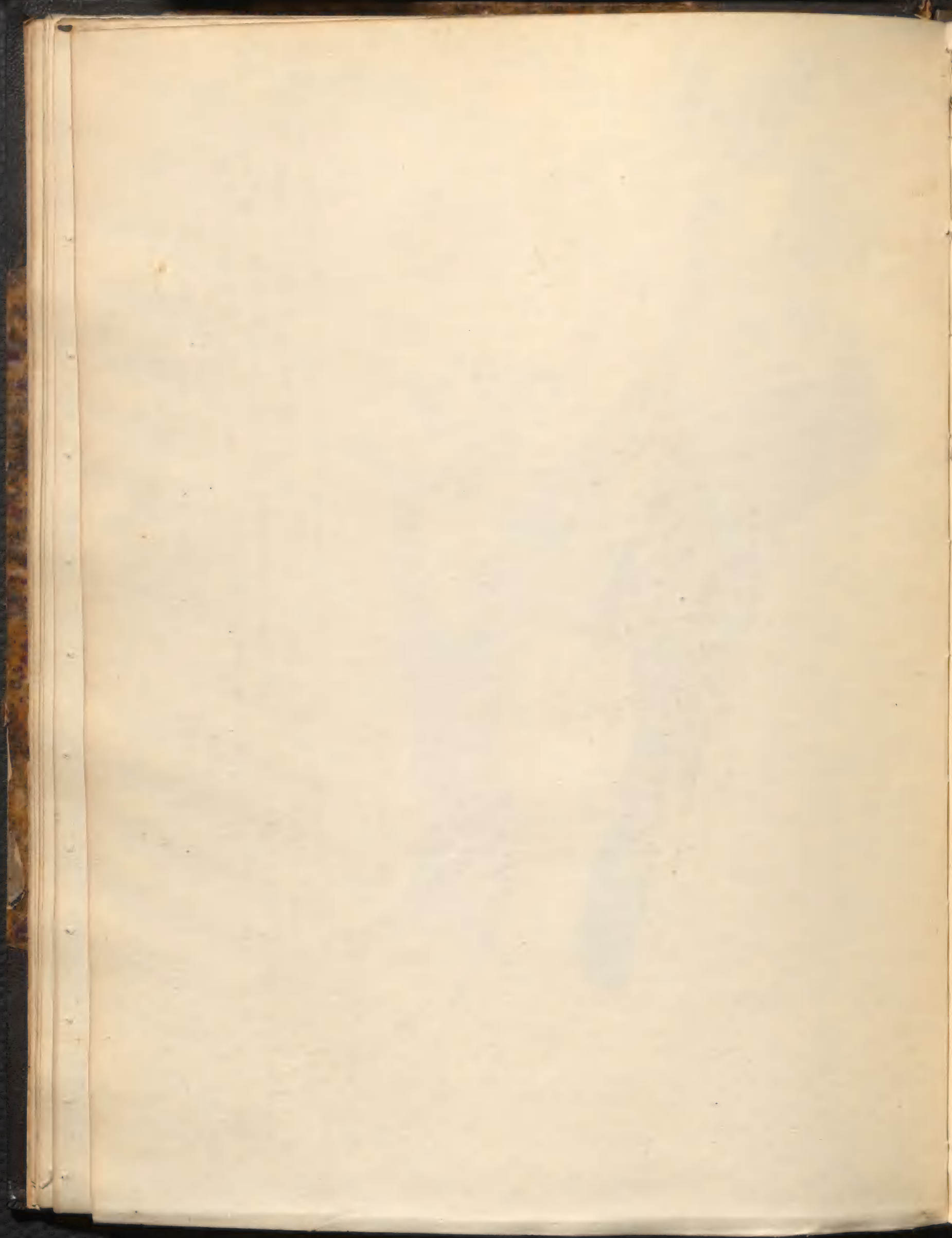
Kosh (*Eudynamis scolopacea*).

The Eastern Black Cuckoo of Latham. V. Vol 3. P. 282.

+ April 30. killed at Salt Shang. half size.

Length  $8\frac{3}{4}$  -  $7\frac{3}{4}$  - Bill  $1\frac{1}{2}$  - Broad  $23\frac{3}{4}$  - inches. Tongue small, fleshy, rounded, & has the hooked joint.  
 Tail 1.2.3.4 joints. Tail 10 feathers. much rounded. It seen in Hindustan in the spring & until the rains.  
 called Kocel. from the similarity of its cry to that word. said to eat fruits, and the white ants as soon as these  
 fly. it is called Kallee Kocel (Black Kocel) to distinguish it from a smaller sort. lays its eggs in crows nests.







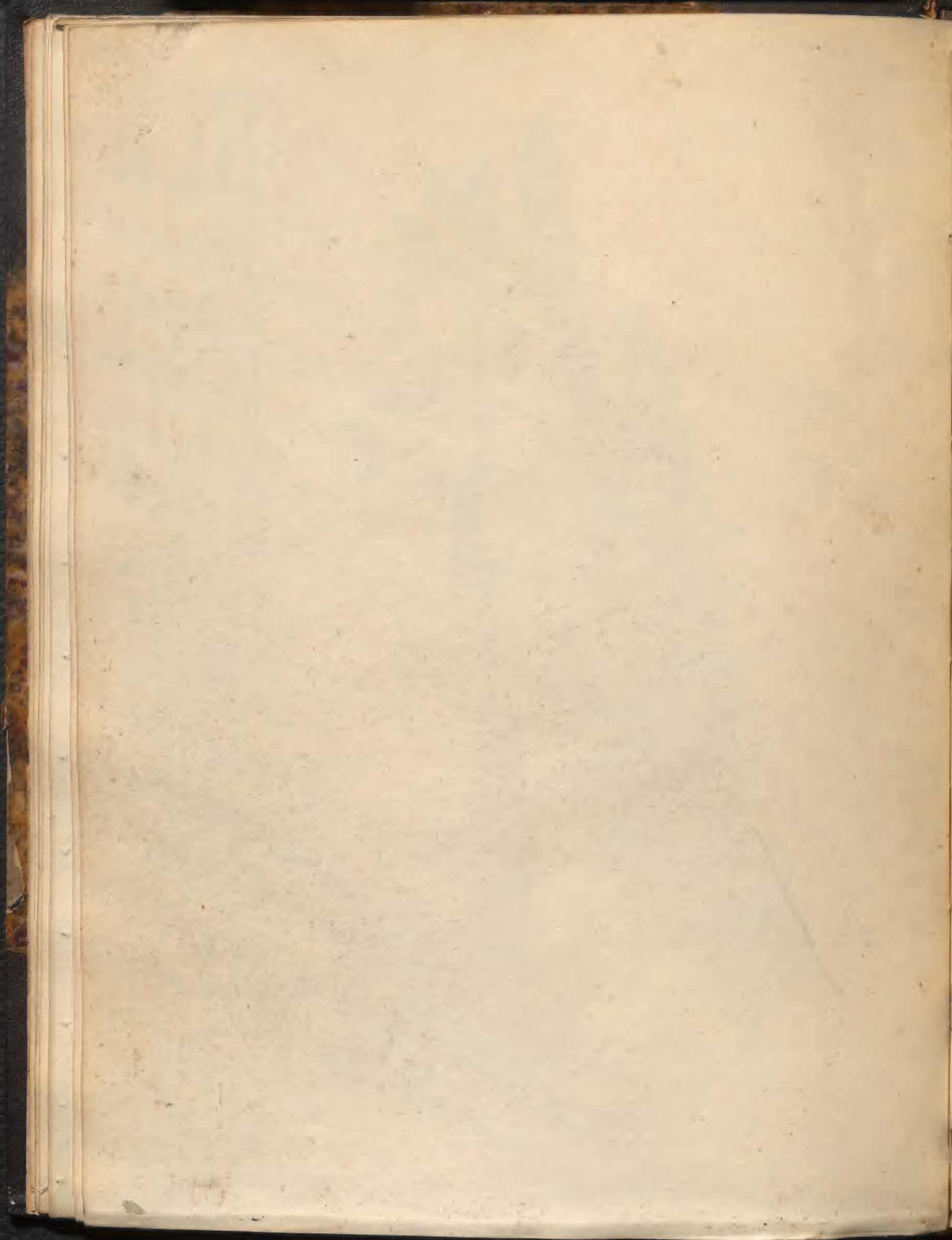


\* June 6. 1828. Killed at Pokore

$\frac{3}{4}$  size. correctly drawn.

Length  $6\frac{1}{2}$  -  $8\frac{1}{2}$  Bill  $1\frac{1}{2}$  - Broad  $2\frac{1}{2}$  - inches. Tongue lancet shaped flat & extremely thin. Inner wing-coverts like belly. Sides of body do. Inner web of quills marked with wedge shaped white bars like this; a tinge of rufous at the inner point. The outer webs of the 4 or 5 outer quills have bars of brownish rufous spots. Tail 10. set on very high up the body. Under side greyish white with black bars. rounded. Back like the wing, which hides it when closed. Found all over Suhowall in the spring. Called Kapul pookku. (from its cry. see Vol 1. Pl 4) From the number of natives who said so, this must be the real one. it is a shy bird, difficult even to see, although heard in every direction; chiefly early, & late, often at night.









Length ♂ -  $6\frac{3}{4}$  -  $1\frac{1}{4}$  -  $22\frac{3}{4}$  - inches.  
This is the female of the preceding. Those parts where  
it differs appear in the drawing. The underparts, from  
the breast downwards, are the same; except that the  
under tail coverts, have the curved bars a little  
larger and darker.

+ June 7<sup>th</sup> 1828.  
Killed at Pokree - correctly drawn.









killed in the Doon, called  
Bregulā, usually if not  
entirely found in deep cool  
ravines, which have water  
running thro' them.

\* July 16. 1828. half size.

Length  $15\frac{3}{4}$  - Bill  $3\frac{1}{4}$  - Head  $2\frac{1}{4}$ . Tail  $12\frac{1}{2}$  perpendicular. - inches. Tongue fleshy at root, with the hooked joint.  
thin, flat, horny towards the end,  $2\frac{1}{3}$  as long as the bill. Nostrils perianous. Lower part of belly, vent, & under tail coverts,  
like upper belly. Rump & whole of underside of wing, light bluish slate color. On each side of the rump, hid under the feathers,  
are a tuft of yellow silky hairs, in substance like those of a fresh ear of Indian corn. Tail 12. rounded, blackish, bluish  
green. Toes 1, 2, 3. & joints, middle membranes to the outer to the 1st joint.









Pied Crested Cuckoo (*Clamator jacobinus*).

\* Piore, Sept 1<sup>st</sup> 1828  
Fullsize, well done.

Length  $5\frac{3}{4}$  -  $6\frac{3}{4}$  - inches. Tongue about an inch long. This shape. fleshy at the root. Thin flat & horny for the rest, & divided at the end. Inner wing coverts like breast. i.e. the smaller; the larger, light blackish slate color. Not birds surrounded on the upper side by a prominent rim. Tail 10. Toes 1. 2. 3. 4 joints. The white wing patch is made, by the inner web of outer quill; both webs & quill of 2<sup>nd</sup> to 7<sup>th</sup> quill, & outer web of 8<sup>th</sup> quill. The color of the upper part is a mixture of black, brown, green, & blue. each of which appears thickest in particular lights. The 2 middle tail feathers have more brown than the others. This an elegant bird, except the legs which are long, particularly the thigh joint, like most Cuckoos. Only seen for the 6 summer months. Called loil. called at night. The more common name of this is Miolra. it only is a long shrill whistle. chiefly heard in evening, often in morning, sometimes at night.









+ Thoms. Nov. 28. 1828.  
Full size. correct.

Length 7 -  $5\frac{1}{2}$  -  $1\frac{3}{4}$  - inches. Nostrils <sup>partly</sup> his and or reflected hairs. Bill compressed like a grackle. Back & rump like the belly & vent. Tail 12 - Does 1. 2. 3. 4 joints. Middle & outer joined to 9<sup>th</sup> joint. This is found in the warmer parts of Burkwall. usually 10 or 12 or more together. hopping quickly from branch to branch in small trees & underwood. making a cackling & piping & whistling noise. The white is a fine silky white.









+ Larrea Aug 29<sup>th</sup> 1828.  
Correct. Full-sized.

Length  $4\frac{3}{8}$  -  $3\frac{1}{8}$  -  $9\frac{3}{4}$  - inches. Tongue thin horny, divided. Bill in some has a just perceptible notch. Not in all.  
Tail 12. The inner webs blackish greenish h. brown. Toes 1. 2. 3. 4 - Middle joined to inner half way, to outer wholly  
up the 1<sup>st</sup> joint. The feathers all over except tail are pointed. it is a ragged bird.  
This is common all over Newhall. Both in hot & cold places. Called Mōt. hekurā. or Shekurā. Seen hopping about  
low bushes, notised much like a robin. builds in small bushes, or tufts of grass. nest of fine grass or feathers. lays  
from 3 to 5 eggs. brown, black, red, & white mixed. Male & female alike. (in for n.)  
The tint of this birds feathers vary in different lights. flying about it appears all dull brown.









+ July 7<sup>th</sup> 1878. Fullage.  
conct. Plover.

*The Black & Scarlet Shrike.*

Length 4 - 4 1/2 - 5 1/4 - 11 - inches. Bill a little hooked, & has a slight notch. Tongue flat, thin, fleshy at root, horny at tip, slightly barbed. The ends of the greater <sup>and</sup> coverts are scarlet, and all the quills except the 2 outer & innermost, are scarlet on both webs. But not on the 1st. The 2 outer have some pieces of little scarlet on in the inner web, & the 2 inner, on the edge of their outer web. The 3 or 4 inner quills have, sometimes a small patch of scarlet on their outer web, near the tip, which in some is joined to the larger patch. Tail 12 at base. Tail 1. 2. 3. by joint. Middle joined to the outer to the second joint.







Killed in the Son. Found in warm places all over the hills. Bill has a slight notch.

Length  $4\frac{3}{4}$  -  $4\frac{1}{2}$  - Bill  $\frac{9}{16}$  - Bread 13 - inches. whole of the under parts bright yellow. rather lighter on the vent. Eyelids yellow. Irides greenish brown. Tongue very thin, flat, broad at root, narrow at point, where it is horny & divided. it has the hooked joint. Inner wing coverts yellow. The yellow wing patch has this appearance when closed. but when open, the wing has a regular bar of yellow. every quill but the two outer, being yellow on both webs, but not on the shafts. The four or five inner quills have a little yellow on the edge of outer webs near the tip. Fees 1, 2, 3, 4 joints. Middle joint to the inner half-way, to the outer wholly up the 1<sup>st</sup> joint. Tail 12. as drawn. Called Kancee Chura by the Jookus (a common name for any small handsome bird) said to be a female. Male said to be all red.

July 7<sup>th</sup>. This is the female of the foregoing (the black & scarlet throat). Several large black together & killed several of each. near Kancee. For the first year. The colors generally are not so bright, especially the yellow, which is light dirty grayish yellow. nor does the greenish yellow extend so high up the back. The tips and edges of the quills are in some more, in some less, white, or yellow. in some scarcely at all. The quantity & intensity of the white edging to the feathers on the upper parts, vary much in different birds.











Fig 1.

+ April 10. Full size. correct

killed at Melpoore.

Length  $3\frac{3}{8}$  -  $2\frac{5}{8}$ . Bill  $5\frac{1}{8}$  - Broad  $9\frac{3}{4}$ . Tongue flat  
short, thin, bristled. The bill is very flat, & base broad.  
inner web of quills, on both sides, & the outer web on its  
underside is light blackish slate color. inner web  
of tail do. Tail 12. Toes 1, 2, 3, & joints. Middle  
joint to inner half way up eye 1st joint, and to the  
outer toe as far as the second joint. The eye has a  
nictitating membrane from forwards. Two or three bristles  
at the corner of the mouth, & over the nostril. bill much hooked  
at the end, & has a slight notch. June 3<sup>d</sup>. Shot one at Pokree  
(Nagpoor) as it flew off its nest, which was made of green moss,  
under the root of an oak. (S) This shape not 4 inches diam.  
over all. 3 eggs light pinkish white, with a reddish brown ring  
on the large end.



Fig 2.

+ April 26. Full size.

killed near Melpoore.

Length  $3\frac{3}{4}$  -  $1\frac{7}{8}$ . Bill  $5\frac{1}{8}$ . Broad 8 - inches.  
Tongue flat, thin, bristled at the end & has the hooked joint.  
Toes 1, 2, 3, & joints. Middle & outer  
joined as far as 1st joint. Vent band at joint very light yellow.  
It has the motions of the shrike.

Aug 15<sup>th</sup>. I find these are common in most parts of Surinam.  
When young the tail feathers are tipped with rufous.  
called near Paoee the troo. built in Paoee. nest of grass lined  
with hair or wool. large 3 to 5 eggs color green. This is the male.  
the female is all light brown, dashed with darker. (by sister)



These are on the whole rather larger than the rest ones. see Pl. 20. The body feathers are all bluish-black on the root. legs; which in some show so much as to make the back appear crimson. The shafts of the back feathers & wing coverts are blackish; almost black in some.





Paradise Flycatcher (*Tropisophna paradisi*).

Length  $4\frac{3}{4}$  -  $12\frac{1}{2}$ . Bill 1. Broad  $11\frac{1}{8}$  - inches. Back has a blue tinge on the white. Tail & under parts pure white. Tongue narrow flat, very thin, hairy & divided at the end. Color of head is greenish bluish black. Quills have white outer web, and also the edge of the inner white; very narrow on the outer quills, growing broader on the inner quills, till the three or four innermost have only a narrow stripe of black in the middle. Tail 12. Shaft all black except the end half of the two middle. The outer edge of the 3 outer feathers is black, & of the two fourths very thin. Row 1. 2. 3. 4. joints. middle joined to the inner to the 1<sup>st</sup>, to the outer to the 2<sup>nd</sup> joint.

This form is the form during African May. Called 'Takool' by the Gwahalees.

MS. The bill & eye-balls should have been more of a light blue. like Pl. 20.

+ April 16<sup>th</sup> 1828









+ June 2.  
Fullsize.  
Killed near Pokroo in Nagpoor.  
Length 4 -  $3\frac{3}{4}$  - Bill  $3\frac{1}{4}$  - Broad  $10\frac{3}{4}$  - inches. Tongue flat  
fleshy, horny at end. Lancet shaped, pointed, & has the hooked-  
joint, inner wing coverts like breast. Wing has this appearance  
when closed, but it has a bar of red; every quill but the three  
outer & two inner, being red on both webs in the middle; the  
inner web being lighter than the outer. Tail 12. Like Pl. 15,  
but red & brownish black instead of yellow & black. Tars 1, 2,  
3, 4, joints. Middle joint to outer, to the 2<sup>nd</sup> joint. Called  
Powe. builds in branches, nest of mops (Simala or simala)  
lays 3 white eggs. Only seen the 6 summer months.  
said to be the female. male almost all red. Bill has a slight  
notch.



+ June 19th. Unknown.  
Fullsize. correct.  
Length whole  $7\frac{3}{8}$  inch. This must be the female. except being  
yellow where that is red, & generally the colors not being so bright  
it is precisely similar. The ash dashing of the bill on breast & the  
roots of feathers. Lower part of belly & under tail coverts almost white.  
The very tips of two or three of larger outer wing coverts yellow. inner  
wing coverts do.

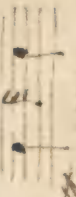








+ June 2<sup>d</sup>. Full size.  
Killed near Poknee in Nagpoo.

Length  $5\frac{5}{8}$  -  $4\frac{5}{8}$  - Bill  $7\frac{7}{8}$  - Broad  $1\frac{1}{4}$  - inches. Tongue like the preceding, but sharper at the end. The inner web of the quills rather lighter than the outer, and on the 3<sup>d</sup>, 4<sup>th</sup> & 5<sup>th</sup> there is a patch of light whitish grey. Toes 1, 2, 3, & joints. Middle joints to outer to the 1<sup>st</sup> joint. Called Koil. builds in holes in rocks, nest of mud. lays two white & black eggs. Cries chiefly at night, a shrill whistle like this  the natives say it says "pan too pan". It is not heard in the 6 winter months, but seen all the year. Bill has a slight notch.









♂ Paradise Flycatcher (Tersilochus paradiseus).  
(Intermediate Stage)

+ June 18<sup>th</sup>. 1828. Killed at Laroe.  
Correctly brown. Full size.

Length  $4\frac{1}{2}$  -  $9\frac{1}{8}$  - 1 -  $11\frac{1}{4}$  - inches. Tongue narrow, very thin, horny, gouged shaped, & divides for an eighth of an inch at the end. Gape very broad. Four inner quills like back - rest black with white outer-edge - except the two outer which are all black; & much shorter than the rest, outermost shorter of all. Three or four outer feathers of the larger coverts are black with white edging. Tail 12. Tail 1, 2, 3. 4 joints. Middle joined to inner as far as 1<sup>st</sup> joint. To outer as far as 2<sup>nd</sup> joint. Inner wing coverts reddish brown & white mixed. - The people tell me that this is the male of that in Pl. 17. I shot another in which the crest was not so long, color the same, rest of the head dark blackish ash; throat blackish ash, gradually getting lighter to the belly which was white. Quills blackish where this is black, reddish brown where this is white. The two middle feathers were 1 half an inch, the other an inch longer than the two 5<sup>th</sup> in other respects the same. It had the appearance of a young bird, & is probably a young male; or should this be a different sort, it may be the female. This & the white are seen sometimes together, sometimes separate. The whole of the feathers of both, have a silky gloss. The white in both being peculiarly delicate. The head & crest, in some lights appears pice-red black, in others glossy dark blue, in others glossy bottle-green.



113. These birds differ considerably in the intensity of their color. In some the wings & tail are much lighter brown; the outer  
feathers of the latter being light ash, almost white. In some the whole of the underparts are tinged with rufous; darker at  
towards the vent. & sides of body.

There are said by the natives to imitate the cry of various birds. and therefore called the brownie from its clearness.  
I have certainly heard it imitate the cry of the black partridge. The natives say it thus decry. small birds within its  
reach and then kills them. It is a heavy flying bird, making short & frequent flights.  
I have seen them with the bill much more hooked than this.





+ July 1<sup>st</sup> 1828. Moore

Full size. Very correct.

Length.  $4\frac{5}{8}$  -  $4\frac{7}{8}$  -  $7\frac{1}{8}$  -  $11\frac{1}{2}$  - inches.

Bill has a notch. Tongue strong. But from pointed to blunt. The whole of the bill is light.

quills. Tail 12. Tars 1. 2. 3. 4. joints. Middle & outer joint to the 1<sup>st</sup> joint. Nostrils perisous. Eyelids gray. Bristles greenish brown.

Inner wing covers light cream color. Found all the year. Called Burwickos. (In the plains of Iowa). Males in Dec. of which

and fine groups. lays 4 to 6 eggs dirty white mottled with redish. When just able to fly. The whole of the parts are beautifully

mottled dark and light brown. pulous towards the wing. all below the wing very light. all colored brown. upper mesial

slightly hooked.

The female it said to be the same, but I suspect it to have the color not so bright. having shot several so, apparently full grown.

Fig 2. Full size. Copied from  
Old book. See end.

smaller and of 1828

in several of 1828

the whole of the bill is light.

Nostrils perisous. Eyelids gray. Bristles greenish brown.

Males in Dec. of which

the whole of the parts are beautifully

all below the wing very light. all colored brown. upper mesial

slightly hooked.

The female it said to be the same, but I suspect it to have the color not so bright. having shot several so, apparently full grown.









+ Pöree, Aug 23<sup>d</sup>. 1828.  
Full size. Well done.

Length ♂ -  $6\frac{1}{2}$  -  $1\frac{3}{4}$  - inches. Tongue flat, thin, fleshy at root, horny at tip, not very pointed and divided. Upper breast rather lighter than back. Feathers slightly fringed with white. Sides of body under wings & under tail coverts the same, but the white fringe broader. Lower part of breast & belly brown. Tars 1, 2, 3, 4 joints. Middle joint  $\frac{1}{2}$  way up first to inner; to 2<sup>d</sup> joint to outer. Inner wing coverts black, with a spot of white near the tip. The general color of the bird is bluish greenish black, each predominating in different lights. Head black not dark as rest. Throat dark velvet black. Bill has a just perceptible notch. Nostrils hidden. Both mandibles have projecting beak. Those of under, fewer & smaller, & point slanting upwards. Tail 10 as drawn.









+ *Quercus*. Shot. 12<sup>th</sup>. 1828.  
Full size. Correct. except the legs are  
a little too short.  
Length  $5\frac{3}{8}$  -  $5\frac{3}{4}$  - 1 - 18 - inches. Bill has a notch at the tip of both mandibles. Tarsus like the last.  
is similar to the last; but it is generally a darker bluish-black tinge; and its head, & belly are the same color as the  
rest of body; greater quills not so brown. The eye too different q.v. in all other respects the same. I believe to be a different species.  
Both known by the same name viz Shenchoo by the hillas & some of the Jurchurali people. *Shenchoo* by the latter.  
This was just beginning to moult. Sept 22. Shot on similar, without the white at corner of the mouth.









+ Fig 1. Full size by scale.  
Shene Nov. 1828.

Length  $2\frac{1}{2}$  -  $2\frac{3}{8}$  -  $5\frac{1}{8}$  -  $8\frac{1}{2}$  - inches. Bill something like a shrike. gape wide. Both mandibles hollow. Tongue flat, horny, & fringed at the end. Upper mandible has a slight notch. Tail 12 rounded. Found in the Doon and plains below.



*Phoenicurus Frontalis*

+ Fig 2. Shene Nov. 1828.  
Full size by scale.

Both mandibles hollow. Tongue flat, horny, & fringed at the end. Upper mandible has a slight notch. Tail 12 rounded. Found in the Doon and plains below.

Fig 2. Length  $4 - 2\frac{7}{8} - 3\frac{1}{4} - 10\frac{1}{4}$ . Bill like a warbler. Tongue thin, horny, & divided at the end. Ear large. Inner wing - coverts light rufous. Tail 12. Two middle black on inner webs all but the root, on outer web not quite so far down. Found in Parkhill, & most parts of the Himalayas that are warm, & in the plains below. That in Pl. 1. Fig 2. is I believe the female.  
See end of book.









+ *Thom. Oct. 25<sup>th</sup> 1828.*

*Full sized. Correct.*

*Length  $6\frac{1}{8}$  -  $3\frac{1}{8}$  -  $1\frac{1}{8}$  -  $1\frac{3}{8}$  - inches. Tongue flat, thin, horny, & divided at the end. The upper parts are black with a tinge of dark. Bottle-green.*

*The wings & tail not quite so dark, & blackish brown, with the bottle green tinge not so strong. Lower part of wing like the belly. Sides the same. The white on the wing is on the smaller coverts. Tail 12. a little rounded. Toes 1. 2. 3. & joint. middle joint to outer to the 1<sup>st</sup> joint. This bird was about half-moulted. Inner wing coverts light whitish - cream-color.*









+ Killed at Seringapat. June 20<sup>th</sup> 1838.  
Very correct. Full sized.

The Malabar Grackle of Latham. V. 3. P. 151.

Length  $5\frac{1}{2}$  -  $2\frac{3}{4}$  -  $1 - 12\frac{3}{4}$ . Bill like an oriole. Nostrils with a very slight rim round. Tongue flat, thin, horny, gorged & divided. The hind breast, neck, hackles, these hackles extend down the back. The tail the outer quills blackish brown, with in some lights a greenish tinge, with grey tips except the two or three outermost. Tail 10. The four middle like the back, with shades of dark chocolate brown. The rest reddish chocolate at end. half. brownish chocolate at most half. Toes 1. 2. 3. 4. Middle & outer joined to the 1<sup>st</sup> joint. The legs have a gilded gloss, & longest & claws. Inner wing covert, pinkish creamish white. Called Kutt Pore. Male & female said to be alike.









July 15<sup>th</sup> 1828. Pánoe.

Full size. correct.

### The Paradise Grackle. Lath. V. 3. p. 147.

Length  $7\frac{1}{2}$  -  $3\frac{3}{4}$  -  $13\frac{1}{2}$  -  $18\frac{3}{4}$  - inches. Bill has a just perceptible notch. Nostrils guarded by a rim on upper side. Tongue, horny, gorges thin, divided at end. Both eyelids ciliated. Sides very curious, bronzed greenish brown, with yellow specks. Feathers of the head like small hackles. 8 outer quills white for nearly half their length at root and, also some of the larger coverts, middle quills bronzed greenish brown (which in nature has a fine gloss) on the outer webs, black on inner. Smaller quills bronzed greenish brown on both webs. Under wing coverts white. Tail 12. The two middle have just perceptible white tips, under tail coverts, within  $\frac{3}{4}$  inch as long as tail. Tars 1. 2. 3. 4 joints. Middle joined to outer to the 4<sup>th</sup> joint.









Fig 2. Full size. Copied from old book.  
See end of book.

Fig 1. Length 6 - 2 1/2 - 1 1/2 - 12 3/4 inches. Nest built guarded above by a projecting rim. 9 outer quills black, rest 4 blackish with a stripe of the outer web light slate color, rest 4 brown. inner wing coverts pure white. Tail 12. 1/8 inch of middle white joint. Ired & outer joined to 1st joint. Found in the warmer parts of Sanbornville & in the plains. Called Powe. builds in hollow trees. nest of grass & feathers. lays from 4 to 6 eggs. dirty white with black & a few red spots. eats fruit. Much prized by natives kept for its song & taught to speak & imitate other birds. has the epithet of Hugar dastan. Tongue horny neither very sharp or very rounded.

The Pagoda Grackle.  
of La. Vol 3. P. 158.

\* Fig 1. Powe 30 July 1878. well done.  
Drawn from one in a cage, & from  
a killed wild one. Full size.









+ Aug 16<sup>th</sup>. 1828. Fullsize.

Paore. Belly well done.

Length 5 -  $2\frac{3}{4}$  -  $1\frac{1}{2}$  -  $10\frac{1}{2}$  inches. Tongue flat, thin, horny, & divided at end. Inner wing coverts. and sides of body, color of belly & rump. Tail 12. of which the two middle have narrow ragged webs. Tars 1. 2. 3. & joints. middle and outer joined to 1st joint. The white patch is on the outer web of the inner half of the quills. Found in most parts of Newbunell. called *Odoreca*. Male and female alike. Builds in holes under rocks, & Shoolwas. (whence its name) nest of grass, hair, feathers. Lays 3 or 4 eggs. light purple color. Lays from end of March to beginning of May. On the above date shot one which was about half-moulted. Oct 4. Shot one at Newbunell half-moulted. the feathers of the back were slightly tinged with light brown. it was much stouter. Apparently a very old bird.









+ Paere. Sept 10. 1828.  
Full size, well done.

Length 8 - 5 - 1 3/4 - 20 3/4 - inches. Tongue flat, thin, fleshy; but horny & bristled just at the tip. Males have a slight rim on the  
root side. under side of wing, wholly black. 3 or 4 greater quills black. next three or four have a little blue on outer web, rest all blue on  
outer web, but black on inner. Tail 12. inner web black. Toes 1. 2. 3. 4 joints. Middle & outer joined to hind joint.  
This bird was about 3 years moulting. Found in fresh water, chiefly in the summer valleys. Called Bulget.









+ Thoreau, 25 Oct. 1828.  
Full size correct.

Length  $3\frac{1}{8}$  -  $1\frac{1}{4}$  -  $\frac{7}{16}$  - inches. Tongue like a grosbeak. Beak. Inner wing coverts cream color, with a reddish brown shaft. The black is velvety. That of the head has in some lights a tinge of blue or green. Tail 12. Toes 1. 2. 3. 4. Middle joined to outer to 1st joint. The inner rump & upper tail coverts more fiery than the other parts. But flying in the sun a flock of them appear brilliant red.

+ Fig 1.  
July 29<sup>th</sup> 1828. Full size correct. Pair.

Length  $3\frac{1}{8}$  -  $1\frac{3}{8}$  -  $\frac{7}{16}$  - inches. Tongue like a grosbeak. All the back down to the rump has whitish shafts to the feathers. Rump an even light brown on inner web. Toes 1. 2. 3. 4. joined to outer to the 1st joint. Middle joined to outer to the 1st joint. The smaller quills & back feathers as barred with blackish, but so light as only to be seen by close inspection. Inner wing coverts cream-color. (All this shows the markings of the barred feathers. Called *Scortia*. seen in great numbers in the hemp-fields, when the plant is ripe; picking its seeds. Sept. 4<sup>th</sup>. caught one alive. of this year. Upper parts wholly olive-greenish-brown. inner webs of quills & tail, blackish-brown. throat & upper part of breast light rufous. rest of under parts cream-color. apparently not long left the nest. tried to keep it alive, but it would not eat. Built a large round nest of grass; with a small entrance at one side. in low thick barberry or raspberry bushes. lays as many as 8 or 10 eggs pure white.









Fig 2. Fullsize.

Length  $\delta$  —  $2\frac{5}{8}$  —  $1\frac{1}{2}$  —  $1\frac{5}{4}$  — inches. Bill like a grackle. Nostrils guarded on upper side by a rim. Basal wing & the roots of the 9 outer quills, rufous cream-color on outer, white on inner, webs; with white shaft. does not appear when wing is closed. inner wing coverts rufous cream-color. Tail 12. all but the 2 middle tipped with the same, most towards the outer ones. Tars 1, 2, 3, 4. joints rough & scaly. Middle joined to outer to 1<sup>st</sup> joint. Common in Hindostan.

Fig 2. Length  $3\frac{1}{2}$  —  $2\frac{1}{2}$  —  $\frac{1}{2}$  — 10 — inches. Bill & tongue like a frog-beak. Middle & outer toes joined to 1<sup>st</sup> joint.



+ Nymphoporce. Jan'y 26. 1829.  
Full-size.









*Corvus Leucolophus* Temm.  
+ *Gene Nov. 5. 1828.*  
Fullage.

Length. 7 - 5½ - 1½ - 15½ - inches.

Bill like a thrush. Tongue horny flat, thin, slightly bristled at the end. Tail 12. The four middle q. v. The other eight white tipped.  
I believe this is the female of that in p. 12.









+ Thorne Nov. 5. 1828.  
Full sized.

Length.  $5\frac{1}{2}$  - 5 - 1. - 16. - inches. Bill like a grackle. Tongue thin, flat, horny, & divided. Irides a glassy pale yellow. eyelids the same. Rump & upper tail-coverts has a very slight tinge of blue, in the brownish green. Tail 12. rounded. Tars 1. 2. 3. 4 joints. Middle webbed to the inner at the base. joined to outer to the 1st joint.







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Red-wattled Lapwing (*Sarcoghemmus indicus*)

+ Haridwar. 13 Nov 1828.  
Two thirds size. correct.

The Goa Sandpiper. of Latham. Vol. 9. p. 304.

Length  $8\frac{1}{2}$  -  $5\frac{1}{3}$  -  $1\frac{3}{8}$  - 29 - Per:  $10\frac{1}{2}$  inches. Tongue fleshy, flat on upper, round on lower side, just at tip a little horny. Nostrils in a furrow, perious. The black of the head & breast has a slight tinge of bottle-green. The red stripe is a wattle fixed close to the eye, the rest loose. Inner wing coverts, sides of body, & tips of outer wing coverts pure white. Quills black, with the roots of the outer white, which encroaches more & more till three quills are all white, <sup>next to</sup> the four innermost ones which are as drawn. Upper tail coverts white, with a slight ochreish (yellow) tinge. Tail 12, white for half the length at the root, then dark blackish brown for a quarter the length. The remainder white except the two middle, whose ends are like the back. The upper parts are a mixture of olive-green, light brown, pink, & violet. The feathers all over are a beautiful glossy, silky texture. Toes 1, 2, 3, & joint, middle webbed to inner at the base, to alter as far as first joint. The back toe so small & high up as to be useless. Found all over Bengal, Hindostan, & Surkhwall, called Interee from its cry, often cries at night. Found near marshes, in dry plains, & in cornfields, runs very fast, flies clumsily, flapping its wings much, flights short, often returning to the same spot.







Hoopoe (*Upupa epops*)

The Common Hoopoe of Latham.

Length  $8\frac{3}{4}$  -  $9\frac{1}{2}$  -  $10\frac{3}{4}$  inches. Tongue  $>$  sickle shape. The outergill short as Dawn. The nest to have one patch of white on both sides and shaft about  $1\text{ m } \frac{1}{4}$  inch from the end. The 8<sup>th</sup> on shaft & inner web. The nest two only on inner web &  $\frac{1}{4}$  inch from end. remaining bare & new the 11<sup>th</sup> only on inner web. The 12<sup>th</sup> on inner & 2 patches on outer. 13<sup>th</sup> on inner & 3 patches on outer. remainder on both webs & shaft. except the 3 innermost as Dawn. The outer coverts have 2 bars of white. Thus giving 5 bars in the Dawning, as the rest most one of the quills is hidden. Inner wing coverts light fawn-color. The sashes on the breast are in some feathers on right, in some on left web. Tail 10. Upper coverts black. Common all over Hindostan & fresh water. called Hood-ood by Pictans. Thokbungu. Khatshor, & Sun Bagh. by some a Highcoffe.

\* Sept 3. 2 acres. Well done.







\* *Phainopepla nitens*. Nov. 12. 1828. Full size.

Length  $4\frac{9}{10}$  -  $2\frac{3}{4}$  - 1 -  $11\frac{3}{4}$  - inches. Bill something triangular. Tip of bill pointed. Nostrils partly covered by a membrane at the root. Side of bill 12. even. Tars 1. 2. 3. 4 joints. Middle & outer joined to the 1st joint.

The *Merula* Bee-eater.

Latham Vol 4. P. 125.



The Wry-neck.

Latham V. 3. P. 332.

\* Fig 2. Meent. Jan 3. 1829. Full size. correct, except the nothing not fine enough.

rounded at bottom near the root. Feathers at the tip into a narrow wing covers light greyish green. Sides greenish brown.

Fig 2. Length  $4\frac{5}{8}$  -  $2\frac{5}{8}$  -  $3\frac{1}{4}$  -  $11\frac{1}{4}$  - inches. Tongue like a woodpecker. can project 3 inches beyond point of bill. Tars 1. 2. 3. 4 joints. Tail 10. inner web of quills blackish brown. Motions like a creeper. seen also at the same place.







Fig 1.  
Killed in the Doon.

Length  $6\frac{1}{2}$  -  $3\frac{3}{8}$  - Bill  $1\frac{1}{10}$  - Broad  $10\frac{1}{2}$  - inches. Tongue flat, then slightly bristled at the end. The bluish black dashes on the head are on the shafts of the feathers. Sides olive-brown. inner wing-coverts reddish fawn-color. Belly white with a slight tinge of ash. sides of body the same with dashes of olive brown on the shafts.

Feet 1, 2, 3, & joints. Middle and outer joined to the first joint. Back claw the strongest. Feet & toes scaled. Tail 12. slightly rounded. color of it and of upper tail-coverts like the back.

Fig 2. Fresh size.

Killed in the Doon.


Length  $4\frac{1}{8}$  -  $2\frac{3}{8}$  - Bill  $\frac{3}{4}$  - Broad  $10\frac{1}{2}$  - inches. Tongue  this shape, rather thick at root. Flat towards the end, & a little bristly. A patch of light blue on the lower part of neck and on the shoulder. What as well as the light blue on the head runs up over tail-coverts &c, is a little too dark in the drawing. and it and indeed the whole bird has a most beautiful silky gloss. Under wing-coverts like the breast, which, <sup>also</sup> extends to the vent & under tail-coverts. The outer web of the quills & tail-feathers is light glossy blue. inner webs dark blackish blue, almost black. Tail 12. Feet 1, 2, 3, & joints. Middle & outer joined to the first joint. Sides olive-greenish-brown. (not exactly the color in the drawing).





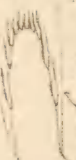
Fig. 1. July 7. 1828

b

Fig. 2. July 2<sup>nd</sup>. 1828

Fig 1.  
Killed in the Room.

Length  $9\frac{1}{2}$  -  $7\frac{3}{8}$  - to the middle, feather  $3\frac{1}{8}$  - Bill 2 - Broad  $3\frac{1}{4}$  - curved. Tongue  $\frac{2}{3}$  as long as the bill, deep, narrow, rather hollow on upper surface, rather pointed and horny at the end. Its color and that of the inside of the mouth, same as bill. Upper part wholly light bluish slate color with a fringe of pink, growing lighter towards the end of the tail and quills, under part wholly white with a slight fringe of the color of the upper part. This fringe changes towards the throat, lighter towards under tail-coverts. Tail is



The 6 middle nearly the same length. Tail 1, 2, 3 & joints. Submated. Back is

membraned to the inner part lightly.

March 8<sup>th</sup> 1889. Bunker. Shot several. Bill black, top of head light black marked with cinnamon. Upper part dirty light greenish. Under color, legs dull dirty red, probably birds of last year.

Fig 2.

Killed in the Room. Killed since June. retired to the cold ridges in the hot weather.

Length  $3\frac{3}{4}$  -  $1\frac{9}{10}$  - Bill  $\frac{5}{8}$  - Broad  $8\frac{1}{4}$ . Tongue fleshy, horny at the end, has the "hooked joint". Inner wing coverts like belly. Sides of body, darker than the belly, lighter than the back. Outer quills yellow edged. Middle quills only so in their centre. Inner have green outer web. Tail 12 black on shaft and near the tips. The green too is much darker than that of the body. Tail 1, 2, 3, & joints. Back & outer joined to first joint. Quills in small bushes, where underwood is pretty thick. Nest of grass, hair. Eggs four or five eggs black with yellow spots. Male and female said to be alike. I saw many & shot 5 at one shot on the ground pecking at worms or insects, for it was <sup>the ground</sup> the body of a <sup>the ground</sup> <sup>the ground</sup> just made dry. They all appeared alike.





+ Fig 1. Feb 2<sup>d</sup> 1828.

b



+ Fig 2. Feb 2<sup>d</sup> 1828.

Fig. 1.  
Killed in the Room.  
Length  $2\frac{5}{8}$  -  $2\frac{1}{4}$  - Bill  $5\frac{1}{8}$  - Broad  $6\frac{3}{8}$ . Tongue broad at base, pointed, horny. Quills blueish black, with rather lighter edges. Tail 12. Two middle, have light black webbs. Not light black, with a white edge to the inner webbs, & white tip. The shafts all white. Toss 1, 2, 3, 4 joints. Middle joined to both the others nearly as far as the first joint, under brownish green. Tull eye.

Fig. 2  
Killed in the Room.  
Length  $6\frac{3}{4}$  -  $4\frac{1}{4}$  - Bill  $1\frac{1}{4}$  - Broad 12 - inches. Apparently a Thrush, killed in my garden at Stone, after a heavy fall of snow in the Hills. Tongue flat, thin, narrow at the end and divided, horny. Nostrils hornier. Inner wing coverts like the breast but a shade of brown on them. Down the middle of the belly are some greyish cream colored feathers, getting broader towards the lower part. Sides of body like breast. The feathers of the under tail coverts are each light whitish cream color in the middle (length ways) blackish brown on each web, and fringed with light brownish beyond, appearing as brown. Tail 12. Blackish brown. Toss 1, 2, 3, 4 joints. Middle and outer joined to first joint. Two two apparently white. The only ones I ever saw. Sides greenish brown. The eye lids should be more of a cream color. Back show longest and strongest,  $2\frac{1}{3}$  inch

+ Fig. 3. June 7, 1828. Full size, very correct. Killed at Stone. Total Length  $4\frac{1}{8}$  inches. I suspect Fig 1. & this are male & female.



Fig 1. July 4. 1828



Fig 2. July 12. 1828.







+ Fig 1. July 18<sup>th</sup> 1828. Half size.

Length  $10\frac{1}{4}$  -  $2\frac{3}{8}$ . Bill  $1\frac{1}{2}$  - Broad  $20\frac{5}{8}$  inches.  
 Feet at top, round at bottom. Nostrils perisperm. Inside dark bottle-  
 green, inside which is the yellow ring. Then the black perisperm.  
 Tail 12. rounded. almost hid by upper, quite by under tail covert.  
 Toes 1. 2. 3. 4 joints. divided to origin. Middle toe  $2\frac{1}{8}$  inch.  
 Called *Sul moonga* by Doon people. (water fowl). *Choti moongabe*  
 by Manis men (small water fowl)



Half size.

+ Fig 2. July 18. 1828

Length  $7\frac{1}{4}$  -  $6\frac{3}{8}$ . Bill  $1\frac{3}{4}$  - Broad  $25\frac{3}{4}$  inches.  
 All over a delicate silky gloss. inside of wings pure white  
 Tongue thick fleshy at root, thin pointed at end. Nostrils  
 perisperm. Toes 1. 2. 3. 4 joints. semipalmated.  
 Back toe small & has no claw. Tail 12 like that of  
 Fig. 1 M. 41. Called *Chelooce* by the Lukungbat boatmen.







Stone-Curlew (*Burhinus oedipus*).

Feb 1. 1828.

Half-size.

Length  $11\frac{1}{4}$  -  $4\frac{3}{4}$  - Bill  $1\frac{1}{8}$  - Broad  $2\frac{3}{4}$  - Perpendicular height  $1\frac{1}{2}$  - inches - eyelids have some lashes on them. Irides bright yellow, surrounded with black; and is marked with beautiful fine black veins. It has a film from forehead, so fine as only to dim, without hiding the eye. Tongue fleshy, soft, rounded at under side, flat at upper side, horny & thin at the tip. Nostrils prominent. Quills black, but every one has the not half of the inner web white like  & three of the middle quills white on root, half of both webs. Scapulars very long. Upper tail-coverts like the back. Tail 12 much rounded. The two middle like the back, all the rest tipped with black, then a patch of white; the rest of the feather light brown barred with dark, but the white encroaches on the latter color, towards the outer feathers, till the 2 outer are almost all white (excepting the black tip). Toes 0, 2, 3, 4 joints. Claws small and fine  far back on the upper part of the toe.

Killed in Chandee. it runs very quick.

This is correct. The eye is not too large. its head is very broad, & large for its size.








+ Feb 3<sup>rd</sup> 1828

one fourth size.

Length  $22\frac{1}{2}$  - 3 - Bill  $6\frac{1}{8}$  - Bread  $5\frac{1}{4}$  - Height 10 - inches. Nostrils a thin slit. Tongue  this size & shape. very thin. Inner wing-coverts like the outer. Tail 12 a little rounded. Tars 1. 2. 3. & joints. Middle webbed to both the others to the 1<sup>st</sup> joint. Claws blackish-horn color. Body wholly that greenish-brown color, with in some lights a dash of greenish.

blackish. blue in some parts. The wings have in some lights a tinge of green.

The head & throat, is completely bare of feathers. the front part or forehead has little light blueish ash knobs. The back part has red bits of flesh projecting like that.

killed in the Doon. Found all over Hindostan. called Kaurakol. a Bögge in some parts.

March 16<sup>th</sup> 1819. Shot one with under yellow.







Green Bee-Eater (*Merops orientalis*)

Indian Bee-eater. Vol 4. P. 122.

\* Zutterghur 29. July. 1829  
3/4 size. pretty correct.

Length  $4\frac{1}{4}$  - 3 to the end of the 5 outer  $4\frac{1}{2}$  to end of middle ones -  $1\frac{3}{8}$  -  $1\frac{1}{8}$  - inner wing-coverts light buff. General plumage green with a tinge of blue & light orange, varying in different lights. & some stronger than others. has a silky gloss. belly & under tail-coverts lighter. Foot like a Kingfisher. Toes 1. 2. 3. 4 joints. Middle joined to inner to 1<sup>st</sup>. to outer to 3 & joint.

Fig 2. Length  $3\frac{3}{4}$  -  $2\frac{1}{8}$  -  $5\frac{1}{8}$  -  $8\frac{1}{2}$  - inches. Bill like a fly-catcher. Tongue horny & sharp-pointed. Inner wing-coverts white. Belly & vent, undertail-coverts dirty white. Tail 12. black on inner blue on outer webs. Legs brownish slate color. Found in South wall has the motions of a Robin. Can erect the head feathers slightly now & then.

Fig 2. Copied from old book. Full size.









Fig 1. March 17<sup>th</sup>. 1818.

Length  $6\frac{1}{2}$  -  $2\frac{1}{2}$  - Bill  $7\frac{1}{2}$  - Breadth of bill  $8\frac{1}{10}$ . It and the whole head immovably in proportion to rest of body. Tongue like the prothonotary. Back rump, & upper tail coverts fringed with yellow. The 3<sup>rd</sup> to 8<sup>th</sup> quills white at the root. inner wing coverts gray & yellow mixed. Tail 12. Toes 1. 2. 3. 4 joints. mid. & outer joined to 1<sup>st</sup> joint. Tailed a little above Mayflower.



+ A Bunting.

May 2<sup>nd</sup>. killed at Amota. Full size. Length  $4\frac{1}{2}$  -  $2\frac{1}{2}$  - Bill  $5\frac{1}{2}$  - Bread  $9\frac{1}{2}$  - inches. Inner web of quills reddish brown, except the 1<sup>st</sup>. Toes 1. 2. 3. 4 joints. middle & outer joined to 1<sup>st</sup> joint. This is the female of Fig 1. Pl. 25. Some of the females have a feather or two projecting by way of a comb. The males of the 1<sup>st</sup> year are like the females.






+ Fig 1. March 22<sup>nd</sup> 1828.

Length  $25\frac{1}{4}$ . Bill  $4\frac{1}{8}$  - Broad  $55\frac{1}{2}$ .

High 19 - inches. Drawn  $1\frac{1}{4}$  size.

Its tongue is  this size and shape. Thick and fleshy. Notable it has apparently none, but in their place, a small piece perceptible that, which did not appear to penetrate. Neck and whole of body dark bluish, greenish black. Tail 14. The head and upper part of the neck is the same color as the rest, but that part has also an immense number of small white narrow feathers, projecting beyond the others and so numerous as nearly to hide them.

It has a very small occipital crest. The white on the outside of the thigh extends to the back of the body.

Toes 1. 2. 3. 4 joints. Four all placed forwards. These and the sort in Vol. 70. may be seen in flocks on the fanges & fenners near Port Antonio. The latter I saw them roosting on trees. These are much more shy than the others. It has a fine silky gloss all over and is a handsome bird.









Rose Pastor (Pastor roseus)

+ April 28<sup>th</sup> full size.

Killed in the Chander jingles.

Length  $6\frac{3}{4}$  -  $2\frac{3}{4}$  - Bill  $1\frac{1}{2}$  - Broad  $1\frac{3}{4}$ . Tongue thin, narrow, gorged, horny & divided at the end. alight nine on the upper side of nostrils. over which the head feathers reach, but not the small hairs. sides of body like belly. inner wing coverts light brownish slate color, with white edges. the 4<sup>th</sup> & 5<sup>th</sup> from body light brown. Tail 12. Toes 1, 2, 3, 4 joint middle & outer joined to 1<sup>st</sup> joint. I saw some thousands (but never before) eating the fruit of the bacella tree, shot a dozen at a shot. all alike. They are most delicious eating, having  $\frac{1}{4}$  inch of fat on upper part of breast. It is a ragged looking bird. They are only seen in the spring till the rains. called by the Borkas Powe. The eye has a nictitating membrane from forwards.







+ April 28.

Full size.

Killed at Harwood.

Length  $3\frac{3}{8}$  -  $1\frac{1}{4}$  - Bill  $\frac{7}{8}$  - Broad  $5\frac{3}{4}$  - inches.

The upper half is a greenish, bluish, blackish hue, and in some lights a violet tinge on the throat.

The lower half of the body, is dark bluish black.

The yellow & orange patch is scarcely visible, when the wing is closed. Tail 12 - color like the belly.

It hovers over a flower like a hummingbird.

June 19. I find these are common in the warmer parts of Guatemala.



+ Fig 2.

April 28

Full size

Killed at Harwood.

Length  $3\frac{1}{8}$  -  $1\frac{1}{4}$  - Bill  $\frac{5}{8}$  - Broad 6 - inches.

Tail 12. This also hovers over a flower like a hummingbird.

I saw another color a little lighter & duller, perhaps a female.

Both these have the hummingbird's tongue.







+ June 19<sup>th</sup>. *Porcedano*.  
very correct. full size.

Total length 7 3/8 inches. I believe this to be the female. It is found in the warmer parts of Guernsey, numbers together, hanging on & climbing the branches. The white of the wing is made by the outer web of the 1<sup>st</sup>, 10<sup>th</sup> webs of the 2<sup>nd</sup> to 7<sup>th</sup>, & outer web of 8<sup>th</sup> quill being white. Made the same. inner wing-coverts white with a dash of cream. From the breast downwards gradually lighter, to the under tail-coverts, which are like the inner wing-coverts. the upper tail, & wing-coverts.

+ May 8<sup>th</sup>. Full size.  
Length 5 3/8 - 2 3/8. Bill 9/10. Broad 12 3/4 inches.  
For description see Vol 1. Pl. 17.  
That being badly done. I drew it over again.  
Some have more rufous on.







+ May 12<sup>th</sup> Fullsize - well done  
killed near Khanda Khall.

Length.  $6\frac{3}{4}$  -  $2\frac{1}{4}$  - Bill  $1\frac{1}{8}$  - Broad  $1\frac{1}{4}$ . Tongue horny, narrow, thin, gape shape, slightly divided at the end.  
Sides of body like the back but have a little more blue. Tail 10 - Toes 1. 2. 3. 4 joints. Bridle joined halfway up  
the 1<sup>st</sup> joint to the inner, halfway up the 2<sup>nd</sup> joint to outer. It is a dumpy bird like a dab chick. is found  
at the sides of streams in furrows, hopping along the stones, & sitting in short low flights over the water.







+ June 14<sup>th</sup> 1828. Killed at Montevideo.

very correct, except that the breast & belly should have been a little lighter. The back of neck should also have been dashed with yellowish. Length  $6\frac{3}{4}$  - 3 -  $1\frac{5}{16}$  - 16 - inches. Bill very hollow, under part into the upper at the root. Not built in a slight hollow. Horns web of quills black edged with buff. inner wing coverts buff color. Tail 10 even upper side like the upper tail coverts. Does 1. 2. 3. 4 joints. two forward ones joined to 1<sup>st</sup> joint. Found in the warmer parts of freshwater. Calls both day & night making a noise something like Keekulon. Called Katkhona. (anoderator - a name given to my strong-billed bird.) It is a ragged feathered bird. I have shot several all alike. This is the same as that in D. 1. Pl. 3. Fig 1. that being badly drawn. Some have a narrow reddish brown space round the eye. Tongue flat, thin, horny, depressed at the end.

Full size.







+ Pearce Oct 2. 1828.

Correct. Full sized.

Length  $2\frac{1}{2}$  -  $2\frac{3}{4}$  -  $\frac{1}{2}$  -  $7\frac{3}{4}$  - inches.

Bill like a fly-catcher.

Inner wing-coverts like the back.

Tail 12. nearly even. On the edge of the outer

webs greenish-yellow.

Tars 1. 2. 3. 4. Middle joint to outer to the 4th; to outer to the second joint.

Nov. 3. Shot one in the Doon.

+ Fig 2. Freemason Oct 5. 1828.  
Full size.

Fig 2. Length  $3\frac{5}{8}$  -  $2\frac{3}{4}$  -  $5\frac{1}{8}$  -  $10\frac{1}{2}$  - inches. Tongue flat, thin, horny, & bristled at end. Inside of mouth yellow. inner wing-coverts like the belly. Tail 12. Tars 1. 2. 3. 4. Middle joint to outer to 4th joint. nump like tail







\* Bannan phoebe. Oct 9. 1828.

Full size with down.

Length  $4\frac{1}{4}$  - 3 -  $3\frac{1}{4}$  -  $12\frac{3}{4}$  - inches. Bill has a slight notch. Tongue flat, thin, at the end, horny & jagged. Sides very dark greenish brown, so as only to be distinguished from the pupil by close inspection. Sides of body like belly. The back is a dark velvety black. This is found all over feathers, hopping about the stones at the sides of streams, cocking its tail. (from the white crown, which is a beautiful silky silvery white.) When flying in the sun the red appears bright & fiery. Builds in small bushes on the banks of streams. nest of fine grass, usually 3 eggs & green.

+ Fig 2. Shona Oct 15. 1828  
Full size. correct.

Fig 2. is the female.







\* Chumbeia fumea Oct 11<sup>th</sup> 1828.  
Full size, correct.

Length  $3\frac{1}{4}$  -  $2\frac{5}{8}$  -  $9\frac{1}{10}$  -  $8\frac{1}{4}$  - inches. Nostrils in a hollow. Tongue horny, very thin & narrow, & divided into several bristles at the end. Breast & belly light creamy white, vent & under coverts dirty ash. Inner wing coverts creamy color. Sculls blackish brown in the middle of which is a patch of light rufous. Legs light brown. Tail 12. Ties 1. 2. 3. 4 joints. Middle joined to inner to 1<sup>st</sup>, to outer to 2<sup>nd</sup> joint. A creeper by its manners.

No 2. Length  $3\frac{1}{4}$  - 3 -  $9\frac{1}{16}$  -  $8\frac{3}{4}$  - inches. Bill has a slight notch. Tongue horny & divided at end. Vent like thighs. The patch on the wing is on each quill except the two outer most and inner most, more yellow towards the outer. Feet 1. 2. 3. 4 joints. Middle & outer joined to first joint.



\* No 2. Khonee Dec 10. 1828.  
Full size, correct.







+ *Khantochoki*, No. 12, 1828  
Full-sized.

Length.  $7\frac{1}{2}$  -  $3\frac{3}{4}$  -  $13\frac{1}{4}$  -  $17\frac{1}{2}$  - inches.













+ Gage's Sparrow. March 6. 1829.  
Full size. correct.

Length  $5\frac{1}{2}$ . -  $3\frac{1}{4}$  -  $1\frac{1}{4}$  - 14 - inches. Bill like a starling's. Nostril covered with a prominent rim. Tongue flat, fleshy, thin.  
horny just to tip & divided. Some wing coverts like under tail coverts, but the bars not so distinct. Tail 12. Tars 1.2.34.  
joints. middle & outer joined to 1st joint.







+ Shreve 7. Nov. 1824  
Fall 1825. Conch.

Length  $8\frac{3}{4}$  -  $5\frac{1}{3}$  - 2 -  $24\frac{5}{8}$  - inches. Saphe goes rather deep into the head. Inner wing coverts like belly. Quills light blue as the  
feet, dark as the middle, which in smaller reaches to tips. In larger light blue beyond the dark. & then the light dark.  
Rump & upper tail coverts dark blue. Tail 12. The two middle greenish brown. Toes 1. 2. 3. 4 joints.







+ Puncchoon Oct 8. 1828.

$3\frac{1}{4}$  size. correct.

Length  $6\frac{3}{4}$  -  $10\frac{1}{4}$  -  $1\frac{1}{4}$  - 19 - inches. <sup>large</sup> Not tail but under feathers. Tongue thick, short, fleshy, square at tip. The white wing spot is made by the inner web of 2<sup>d</sup>, both webs but not shaft of the 3<sup>d</sup> to 9<sup>th</sup>, & outer web of 10<sup>th</sup> quill. (Shot one which had not the white on the 10<sup>th</sup> quill.) Rump cinereous. Tail 12. Tars 1. 2. 3. 4. Middle joined to inner half way up the 1<sup>st</sup>, to outer half way up the 2<sup>d</sup> joint. Inner wing covers to the breast.

Found in the warmer parts of Fowherall called Kuvaii, also in the plains called Mukher. Said to eat insects, young birds, fruits & grain, to be particularly fond of rice. certainly numbers are seen in the rice fields just as the grain is ripe. all appears alike.







Full size  
+ Oct 1828.

Length 8 - 6 -  $1\frac{1}{8}$  -  $19\frac{1}{8}$  - inches. Tongue broad at root, pointed, very flat, & divided at the end. Nostrils large & round. Iris smallest quills reddish-brown on inner web.

Plumage pure white. 10 are upper tail coverts.

Found in Surinam on ridges from 8000 to 10,000 ft above the sea. I have seen many all like this, but one was given me brought from another in the hills, in which the head feathers form a crest.  $\text{♂}$  in other respects precisely similar. Called *Kurpin*.







+ *Alcedo chloris* No. 12. 1828  
Field size.

Length  $6\frac{1}{3}$  - 6 -  $1\frac{1}{2}$  - 22 - inches.

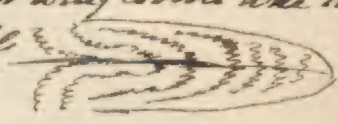






Supra March 9<sup>th</sup> 1829.  
 re quarter size. correct.

Length  $10\frac{1}{2}$  -  $3\frac{3}{4}$  -  $2\frac{1}{4}$  -  $2\frac{1}{2}$  - Per<sup>r</sup>.  $7\frac{1}{2}$  - inches. Nostrils perianth. Inner wing coverts like tail.  
 Rump white also some of the coverts, the longer ones barred like the tail.  
 Toes 1. 2. 3. 4 joints, middle webbed to the outer as far as 1<sup>st</sup> joint.  
 Claws set on far back on the toes.









Pl. 23. *Phalacrocorax*.  
No. third life.

Length 15 - 6 1/8 - 2 - 32. High 10 - outer toe 2 1/4 - inches.  
For description see end of book.







ij. Muhl. 23 March.

fourth size.

Length 9 - 3 -  $1\frac{1}{4}$  -  $28\frac{3}{4}$ . Height 10. Mid toe  $2\frac{1}{2}$  - its claw  $\frac{3}{4}$  - inches. Tongue fleshy at root, horny at tip, as long as bill. Nostrils perianth. Inner wing coverts, greater outer ones, & sides of body, white. Bastard wing white tipped with black on inner web. Outer quill dark black chocolate, all but a little of inner web near the root; 2<sup>d</sup> do but more white, 3<sup>d</sup> still more white, after which they are only black tipped, diminishing towards the middle; whence they are white. Tail had 10 feathers, the four middle black brown, rest white, but I think was not complete, rump like back. upper tail coverts like smaller wing coverts. On the edge of wing a very small spur.







Ajmal 23 March.  
 Tree fourth size.

Length  $10\frac{1}{4}$  -  $2\frac{1}{4}$  -  $1\frac{1}{4}$  -  $24\frac{1}{4}$  - High  $9\frac{3}{4}$  - Mid toe  $2\frac{3}{10}$  - its claw  $1\frac{1}{12}$  - Back claw  $2\frac{1}{10}$  - inches.  
 That over the forehead is a loose wattle, fixed at its lower end to the bill. Tongue like foregoing.  
 The head neck breast, have a variety of hues, blue, dark green, pink. Rump fine chestnut.  
 Inner wing coverts blackish brown chocolate. Tail 10. carmine form, fine chestnut color.







at Kishmanugur. March 27.

as this size.

Length  $11\frac{1}{2}$  -  $3\frac{1}{3}$  -  $3\frac{3}{16}$  - 26 - High  $10\frac{1}{2}$  - inches. Tongue thin flat, fleshy nearly half as long as bill. Nostrils perisporous. Inner wing coverts white except just at the copper edge of wing. Greater outer ones, & bastard wing tipped with white. The quills are white on the root half, rest blackish brown. Rump like shoulder of wing. upper tail coverts white, some of the longest tipped with black. Tail white at the root black with a tinge of green at the other parts which the very ends straggled with dirty white. Toes 1. 2. 3. 4. divided to origin.







# *Amaduvades.*

7 June. 1829. Full size.

Length  $2\frac{1}{2}$  -  $13\frac{1}{8}$  -  $5\frac{1}{2}$  - inches. Bill & tongue are like a Grosbeak. The middle one is the first stage both of male & female. The under parts are greenish yellowish buff. inner wing coverts the same. The females I believe remain so except that as they grow older they acquire more of a blackish grey tinge, & a few white spots on wing-coverts & sides. The right hand one is the next stage of the males, the under parts being greenish yellowish buff with a grey tinge. The left hand one is a complete male, but as they grow old, they acquire still more red on the under parts, head, & upper tail-coverts, and are almost covered with white spots. Tail 12 feathers.





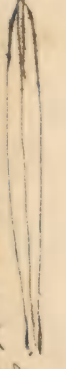


copied from old Book.  
Half size.

Length 12 - 6 1/2 - 2 1/4 - 33. inches. Nostrils large & round, hid under the bristles. Whole plumage fine black. The head, neck, throat, & upper part of breast like velvet. Inhabits the districts within the Himalayas, called the Bhote Parganas. Shot this at Kedarnath in June 1827. Saw them in many places five feet deep. Saw a pair apparently alike, but only shot one. It makes a voracious noise. Called Sagurce Kak (Snowy Crow).

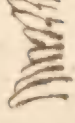




To M. 25. It had no perceptible markings. The wing feathers are a different color to but joined to it its whole way. Body & wing coverts wholly black. Tail 10 (appeared not complete). under very narrow as they have a hoary tinge over those which I could not hit.  This shape. Near the roots, & the shaft is so thick that it is above the web in relief.

To M. 26. Fig 2. Length  $3\frac{1}{2}$  -  $13\frac{1}{4}$  -  $8\frac{1}{4}$  - inches. Probably a thrush or a warbler. Tail 12. Formed in *Junco*. Called *chutter*. Builds of small bits of grass in holes in ground or under clumps of rock. Lays three eggs whitish with black spots at the ends.

To M. 26. Fig 2. Shot a bird similar in shape & motions. Upper parts all bluish slate-color, with the edges of quills like this. Edges of wing coverts white. Under parts mixed light ash, & bluish slate-color. Tail light where there is dark black. white where there is reddish brown. From softness of beak & claws it was evidently a young bird of last season. Probably one of this species.

To M. 28. Fig 2. Length  $4\frac{1}{2}$  -  $13\frac{1}{4}$  -  $9\frac{1}{2}$  inches. Tail 12  This shape. Formed in *Junco* near villages. Has a cheerful chirp. Called *doorra*, which as well as *doorra* is a common name for several species.

To M. 35. Fig 2. This is the female of M. 32. Fig 2. and is the proper figure, being taken by scales. The other by the eye. The male varies much in color at different seasons, being sometimes with almost all pink, at others almost all brown. & that is the same bird.

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